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Jeff Humphrey
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AQUATIC PLANTS AND THEIR CONTROL

90-000001 Dame, Richard F. THE IMPORTANCE OF *SPARTINA ALTERNIFLORA* TO ATLANTIC COAST ESTUARIES. *Rev. Aquat. Sci.* 1(4):639-660. 1989. FR 35(1)
[Dep. Mar. Sci., Univ. S.C.-Coastal Carolina Coll., Conway]

90-000002 Ligowski, Ryszard. THE SPATIAL AND SEASONAL DENSITY OF SESSILE ALGAE IN THE RIVER BOBROWKA AND SOME PONDS SITUATED ALONG ITS COURSE (CENTRAL POLAND). *Acta Hydrobiol.* 30(1/2):209-224. 1988. In English with Polish summ. FR 35(1)
[Univ. Lodz, Inst. Environ. Biol., Dep. Invertebr. Zool. & Hydrobiol., ul. Banacha 12/16, 90-237 Lodz, Poland]

90-000003 Ligowski, Ryszard. DISTRIBUTION OF SESSILE ALGAE SPECIES IN THE RIVER BOBROWKA AND SOME PONDS SITUATED ALONG ITS COURSE (CENTRAL POLAND). *Acta Hydrobiol.* 30(1/2):191-208. 1988. In English with Polish summ. FR 35(1)
[Univ. Lodz, Inst. Environ. Biol., Dep. Invertebr. Zool. & Hydrobiol., ul. Banacha 12/16, 90-237 Lodz, Poland]

90-000004 O'Grady, Kathryn and Lewis M. Brown. GROWTH INHIBITION BY HIGH LIGHT INTENSITIES IN ALGAE FROM LAKES UNDERGOING ACIDIFICATION. *Hydrobiologia* 184(3):201-208. 1989. FR 35(1)
[Brown: Solar Energy Res. Inst., 1617 Cole Blvd., Golden, CO 80401]

90-000005 Smith, A. B. TAMING A RIVER WITH NEW TECHNOLOGY. *J. Inst. Water Environ. Manage.* 3(5):478-487. 1989. FR 35(1)

GENERAL FISH CULTURE

90-000006 Alfons, Hans. [AGRICULTURE AND FISH FARMING.] *Osterreichs Fischerei* 41(8/9):168-179. 1988. In German. FR 35(1)
[Bundesanstalt Agrarwirtschaft, Schweizertalstr. 36, 1133 Vienna, Austria]

90-000007 Avault, James W., Jr. GETTING STARTED IN AQUACULTURE - WHERE TO GET HELP. *Aquacult. Mag.* 15(6):63-66. 1989. FR 35(1)
[Fish., La. State Univ., Baton Rouge]

90-000008 Barkoh, Aaron. MANAGING FINGERLING FISH PRODUCTION PONDS. *Ph.D. dissertation, Univ. Mo.* 229p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(4):1176. 1989. Order No. DA8915293. FR 35(1)

90-000009 Bromage, Niall and C. Jonathan Shepherd. FISH, THEIR REQUIREMENTS AND SITE EVALUATION. *In: Intensive Fish Farming. C. Jonathan Shepherd and Niall R. Bromage, editors.* p. 17-49. 1988. FR 35(1)
[Inst. Aquacult., Univ. Stirling, Stirling FK9 4LA, Scotland]

90-000010 Bromage, Niall. PROPAGATION AND STOCK IMPROVEMENT. *In: Intensive Fish Farming. C. Jonathan Shepherd and Niall R. Bromage, editors.* p. 103-153. 1988. FR 35(1)
[Inst. Aquacult., Univ. Stirling, Stirling FK9 4LA, Scotland]

90-000011 Bromage, Niall; C. Jonathan Shepherd and John Roberts. FARMING SYSTEMS AND HUSBANDRY PRACTICE. *In: Intensive Fish Farming. C. Jonathan Shepherd and Niall R. Bromage, editors.* p. 50-102. 1988.

GENERAL FISH CULTURE (CONTINUED)

90-000011 CONTINUED FR 35(1)
[Inst. Aquacult., Univ. Stirling, Stirling FK9 4LA, Scotland]

90-000012 James, Charles M. and T. S. Abu-Rezeq. AN INTENSIVE CHEMOSTAT CULTURE SYSTEM FOR THE PRODUCTION OF ROTIFERS FOR AQUACULTURE. *Aquaculture* 81(3/4):291-301. 1989. FR 35(1)
[Kuwait Inst. Sci. Res., Maricult. & Fish. Dep., P.O. Box 1638, 22017 Salmiya, Kuwait]

90-000013 Korovin, A. I.; V. F. Oushakova; E. B. Perminov; G. G. Manoucharyan and V. B. Samoilov. [INSPECTION OF POND FARM WATER IN ARMENIA.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 208-212, 273. 1987. In Russian with English summ. FR 35(1)

90-000014 Lopareva, T. Ya. [EFFECT OF FISH FARMING INTENSIFICATION ON POND WATER QUALITATIVE INDICES IN VARIOUS FISHCULTURAL AREAS IN KAZAKHSTAN.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 233-237, 274. 1987. In Russian with English summ. FR 35(1)

90-000015 Meade, James W. AQUACULTURE MANAGEMENT. *Van Nostrand Reinhold* 175p. 1989. FR 35(1)

90-000016 Mikheev, P. V. [GAS ISOLATION FROM SILT DEPOSITS IN INTENSIVELY EXPLOITED FISH PONDS AS AN INDEX OF ANAEROBIC DESTRUCTION PROCESSES.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 219-224, 273. 1987. In Russian with English summ. FR 35(1)

90-000017 Mikheeva, I. V. and P. V. Mikheev. [BACTERIAL COMMUNITIES IN FISH POND WATER.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 212-218, 273. 1987. In Russian with English summ. FR 35(1)

90-000018 Moustaev, S. B.; V. I. Fedorchenko; F. G. Fedorchenko and T. Yu. Zemlyanitsina. [OXYGEN CONDITIONS IN INTENSIVELY EXPLOITED PONDS.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 197-203, 272. 1987. In Russian with English summ. FR 35(1)

90-000019 Parker, Nick. FISH CULTURE IN THE UNITED STATES. *In: Intensive Fish Farming. C. Jonathan Shepherd and Niall R. Bromage, editors.* p. 268-301. 1988. FR 35(1)
[U.S. Fish & Wildl. Serv., Southeast Fish Cult. Lab., Marion, AL 36756]

90-000020 Sarig, Shmuel. THE DEVELOPMENT OF POLYCULTURE IN ISRAEL: A MODEL OF INTENSIFICATION. *In: Intensive Fish Farming. C. Jonathan Shepherd and Niall R. Bromage, editors.* p. 302-332. 1988. FR 35(1)
[Lab. Res. Fish Dis., Nir David, DN 19150, Israel]

GENERAL FISH CULTURE (CONTINUED)

90-000021 Sengupta, A. and D. D. Halder. SELECTION OF SITE, SURVEY, DESIGN AND CONSTRUCTION OF BRACKISHWATER FISH FARM WITH SPECIAL REFERENCE TO THE ISLANDS OF LOWER SUNDARBANS. *Cent. Inland Fish. Res. Inst. Barrackpore Bull.* No 55. 28p. 1988. FR 35(1)

90-000022 Shaw, Susan A. MARKETING THE PRODUCTS OF AQUACULTURE. *FAO Fish. Tech. Pap.* No. 276. 106p. 1986. FR 35(1)
[Univ. Stirling, Stirling, Scotland]

90-000023 Shepherd, C. Jonathan. WHAT IS FISH FARMING? *In: Intensive Fish Farming. C. Jonathan Shepherd and Niall R. Bromage, editors.* p. 1-16. 1988. FR 35(1)
[Promotora Recursos Marit., SA, 15126 Merexo Muxia, La Coruna, Spain]

90-000024 Shepherd, C. Jonathan. COMMERCIAL DEVELOPMENT AND FUTURE PROSPECTS. *In: Intensive Fish Farming. C. Jonathan Shepherd and Niall R. Bromage, editors.* p. 333-364. 1988. FR 35(1)
[Promotora Recursos Marit., SA, 15126 Merexo, Muxia, La Coruna, Spain]

90-000025 Shepherd, C. Jonathan and Niall R. Bromage, editors. INTENSIVE FISH FARMING. *Blackwell Sci. Publ., Ltd.* 404p. 1988. FR 35(1)
[Promotora Recursos Marit., SA, 15126 Merexo Muxia, La Coruna, Spain] Selected chapters indexed in this issue of *Fisheries Review.*

90-000026 Shepherd, C. Jonathan. FISH HEALTH AND DISEASE. *In: Intensive Fish Farming. C. Jonathan Shepherd and Niall R. Bromage, editors.* p. 198-238. 1988. FR 35(1)
[Promotora Recursos Marit., SA, 15126 Merexo, Muxia, La Coruna, Spain]

90-000027 Watanabe, Takeshi. NUTRITION AND GROWTH. *In: Intensive Fish Farming. C. Jonathan Shepherd and Niall R. Bromage, editors.* p. 154-197. 1988. FR 35(1)
[Lab. Fish Nutr., Tokyo Univ. Fish., Konan 4-5-7, Minato-ku, Tokyo 108, Japan]

90-000028 Zemlyanitsina, T. Yu.; T. I. Artamonova and F. G. Fedorchenko. [EFFECT OF MEDIUM FACTORS ON PHYTOPLANKTON DEVELOPMENT IN PONDS.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 224-233, 273. 1987. In Russian with English summ. FR 35(1)

TROUT AND SALMON CULTURE

90-000029 Cook, R. H. SALMON AQUACULTURE IN THE BAY OF FUNDY: A QUIET SUCCESS. *Bull. Aquacult. Assoc. Canada* 88(2):28-40. 1988. From Deep-Sea Res. Part B Oceanogr. Lit. Rev. 36(9):5333. 1989. FR 35(1)
[Biol. Stn., St. Andrews, NB, Canada E0G 2X0] *Salmo salar.*

90-000030 Glenn, C. L.; A. O. Bush and R. C. Rounds. SURVIVAL AND GROWTH OF RAINBOW TROUT AND BROWN TROUT IN FARM DUGOUTS AND WINTERKILL LAKES. *Prog. Fish-Cult.* 51(3):121-126. 1989. FR 35(1)
[Dep. Zool., Brandon Univ., Brandon, MB, Canada R7A 6A9] *Oncorhynchus mykiss* and *Salmo trutta* in Canada.

TROUT AND SALMON CULTURE (CONTINUED)

90-000031 Moring, John R. DOCUMENTATION OF UNACCOUNTED-FOR LOSSES OF CHINOOK SALMON FROM SALTWATER CAGES. *Prog. Fish-Cult.* 51(3):173-176. 1989. FR 35(1)
[U.S. Fish & Wildl. Serv., Coop. Fish & Wildl. Res. Unit, Dep. Zool., Univ. Maine, Orono 04469] *Oncorhynchus tshawytscha.*

90-000032 Scheerer, Paul D. and Gary H. Thorgaard. IMPROVED FERTILIZATION BY CRYOPRESERVED RAINBOW TROUT SEMEN TREATED WITH THEOPHYLLINE. *Prog. Fish-Cult.* 51(3):179-182. 1989. FR 35(1)
[Thorgaard: Dep. Zool. & Program Genet. & Cell Biol., Wash. State Univ., Pullman 99164] *Oncorhynchus mykiss.*

90-000033 Shesterin, I. S. and E. V. Ivanov. [ON THE CAUSES OF YOUNG FISH DEATH ON FARMS UTILIZING POORLY MINERALIZED WATER.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 237-239, 274. 1987. In Russian with English summ. FR 35(1)

90-000034 Stefansson, S. O. and T. Hansen. EFFECTS OF TANK COLOUR ON GROWTH AND SMOLTIFICATION OF ATLANTIC SALMON (*SALMO SALAR* L.). *Aquaculture* 81(3/4):379-386. 1989. FR 35(1)
[Inst. Mar. Res., Dir. Fish., Matre Aquacult. Stn., N-5198 Matredal, Norway]

90-000035 Swanson, G. M. and F. J. Ward. SIZE SELECTION OF ZOOPLANKTON BY JUVENILE WALLEYE, *STIZOSTEDION VITREUM VITREUM,* IN REARING PONDS. *Verh. Int. Ver. Limnol.* 23(3):1679-1684. 1988. FR 35(1)
[Dep. Zool., Univ. Manitoba, Winnipeg, MB, Canada R3T 2N2]

WARMWATER CULTURE

90-000036 Avault, James W., Jr. CATFISH FARMING RESEARCH HIGHLIGHTS. *Aquacult. Mag.* 16(1):66-69. 1990. FR 35(1)
[La. State Univ., Baton Rouge] *Ictalurus punctatus* and *Morone saxatilis.*

90-000037 Baroiller, Jean-Francois and Bernard Jalabert. CONTRIBUTION OF RESEARCH IN REPRODUCTIVE PHYSIOLOGY TO THE CULTURE OF TILAPIAS. *Aquat. Living Resour.* 2(2):105-116. 1989. In English with French summ. FR 35(1)
[CTFT/CIRAD, Dep. Peche & Piscicult., 45 bis, Ave. Belle-Gabrielle, 94736 Nogent-sur-Marne Cedex, France] *Tilapia.*

90-000038 Bello, Salihu and J. O. Ayanda. EXTENSION DEMONSTRATION OF HOMESTEAD FISH-POND CULTURE. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 262-264. 1989. FR 35(1)

90-000039 Chang, W. Y. B. INTEGRATED LAKE FARMING FOR FISH AND ENVIRONMENTAL MANAGEMENT IN LARGE SHALLOW CHINESE LAKES: A REVIEW. *Aquacult. Fish. Manage.* 20(4):441-452. 1989. FR 35(1)
[Cent. Great Lakes & Aquatic Sci., Univ. Mich., Ann Arbor 48109] *Ctenopharyngodon idella, Cyprinus carpio, Megalobrama amblycephala, Carassius auratus, Aristichthys nobilis,* and *Hypophthalmichthys molitrix.*

WARMWATER CULTURE (CONTINUED)

90-000040 Collins, Charles "Bo". COST COMPARISON OF REARING CHANNEL CATFISH FRY AND 2-INCH FINGERLINGS TO THE 6-INCH STOCKER SIZE. *Aquacult. Mag.* 15(6):54-56. 1989. FR 35(1)
[U.S. Fish & Wildl. Serv., Fish Farming Exp. Lab., Stuttgart, AR 72160] *Ictalurus punctatus.*

90-000041 Culver, David A. PLANKTON ECOLOGY IN FISH HATCHERY PONDS IN NARRANDERA, NSW, AUSTRALIA. *Verh. Int. Ver. Limnol.* 23(2):1085-1089. 1988. FR 35(1)
[Dep. Zool., Ohio State Univ., 1735 Neil Ave., Columbus 43210] *Bidyanus bidyanus* and *Macquaria ambigua.*

90-000042 Durno, Janet. RECIPES FOR FISH WITH RICE. *New Sci.* 124(1691):47-49. 1989. FR 35(1)

90-000043 Eyo, A. A. UTILIZATION OF L-METHIONINE IN SOYABEAN DIET BY *CLARIAS ANGUILLARIS* FINGERLINGS. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 153-159. 1989. FR 35(1)

90-000044 Fox, Michael G.; J. Allen Keast and Robert J. Swainson. THE EFFECT OF FERTILIZATION REGIME ON JUVENILE WALLEYE GROWTH AND PREY UTILIZATION IN REARING PONDS. *Environ. Biol. Fishes* 26(2):129-142. 1989. FR 35(1)
[Dep. Biol., Queen's Univ., Kingston, ON, Canada K7L 3N6] *Stizostedion vitreum.*

90-000045 Gannam, Ann Lenore. HORMONES AS FEED SUPPLEMENTS FOR GROWTH ENHANCEMENT IN CHANNEL CATFISH. *Ph.D. dissertation, Auburn Univ.* 91p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1705. 1989. Order No. DA8918787. FR 35(1)
Ictalurus punctatus.

90-000046 Garrett, Gary P. HORMONAL SEX CONTROL OF LARGEMOUTH BASS. *Prog. Fish-Cult.* 51(3):146-148. 1989. FR 35(1)
[Parks & Wildl. Dep., Junction Star Rt., Box 62, Ingram, TX 78025] *Micropterus salmoides.*

90-000047 Ismail, Ahmad and Larrance O'Flaherty. EFFECTS OF FERTILIZERS ON DISTRIBUTION, DENSITY AND DIVERSITY OF PHYTOPLANKTON COMMUNITIES IN PLASTIC LINED PONDS. *Malay. Appl. Biol.* 18(1):59-75. 1989. In English with Malay summ. FR 35(1)
[Dep. Bot., Fac. Life Sci., Univ. Kebangsaan Malaysia, 43000 Bangi, Selangor, Malaysia]

90-000048 Ita, E. O. and C. Ekeoyo. PRELIMINARY COMPARISON OF GROWTH PERFORMANCE OF ALL-MALES, ALL-FEMALES AND MIXED POPULATION OF *OREOCHROMIS NILOTICUS* IN HAPAS SET IN FERTILIZED CONCRETE PONDS. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 82-87. 1989. FR 35(1)

90-000049 Ita, E. O.; C. T. Madu; W. S. Omorinkoba and A. Pandogari. PRELIMINARY ESTIMATES OF THE SURVIVAL RATE OF *CLARIAS ANGUILLARIS* FRY UNDER OUTDOOR HATCHERY MANAGEMENT SYSTEM. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 88-94. 1989. FR 35(1)
C. lazera.

WARMWATER CULTURE (CONTINUED)

90-000050 Ita, E. O.; W. S. Omorinkoba and F. T. Temaaku. OBSERVATIONS ON THE EFFECTS OF SEX COMBINATION RATIOS, STOCKING DENSITY AND WATER DEPTH ON FRY PRODUCTION IN *OREOCHROMIS NILOTICUS* (TILAPIA) IN OUTDOOR CONCRETE PONDS. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 71-81. 1989. FR 35(1)

90-000051 Jo, Jae-Yoon. EFFECTS OF 17α-METHYLTESTOSTERONE IN THE DIET ON SEX REVERSAL, GROWTH, BODY COMPOSITION AND GONOSOMATIC INDICES OF *TILAPIA AUREA* AND ON SEX REVERSAL AND GROWTH OF *T. NILOTICA*. *Ph.D. dissertation, Auburn Unv.* 81p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1706-1707. 1989. Order No. DA8918801. FR 35(1)

90-000052 Legendre, Marc and Jean-Marc Ecoutin. SUITABILITY OF BRACKISH WATER TILAPIA SPECIES FROM THE IVORY COAST FOR LAGOON AQUACULTURE. I-REPRODUCTION. *Aquat. Living Resour.* 2(2):71-79. 1989. In English with French summ. FR 35(1)

[ORSTOM/Cent. Rech. Oceanogr., BP n° V 18, Abidjan, Ivory Coast] *Tilapia guineensis* and *T. melanotheron*.

90-000053 Legendre, Marc; Saurin Hem and Adou Cisse. SUITABILITY OF BRACKISH WATER TILAPIA SPECIES FROM THE IVORY COAST FOR LAGOON AQUACULTURE. II - GROWTH AND REARING METHODS. *Aquat. Living Resour.* 2(2):81-89. 1989. In English with French summ. FR 35(1)

[ORSTOM/Cent. Rech. Oceanogr., BP n° V18, Abidjan, Ivory Coast] *Tilapia guineensis* and *T. melanotheron*.

90-000054 Lu Shenggao and Huang Chongping. [ECONOMIC AND ECOLOGICAL EFFECTS OF FISH CULTURE IN PADDY FIELDS.] *J. Ecol. China* 7(4):26-29. 1988. In Chinese. From Ecol. Abstr. 89(6):89L/06662. 1989. FR 35(1)

Carassius cuvieri, Ctenopharyngodon idella, Cyprinus carpio, and *Hypophthalmichthys molitrix* in China.

90-000055 Madu, C. T. and R. F. Ajibola. DIETARY PROTEIN REQUIREMENTS OF MUDFISH (*CLARIAS ANGUILLARIS*) FINGERLINGS. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 110-116. 1989. FR 35(1)

90-000056 Madu, C. T. and T. T. Tsumba. DIETARY PROTEIN REQUIREMENTS OF MUDFISH (*CLARIAS ANGUILLARIS*) FINGERLINGS: II: THE OPTIMUM CRUDE PROTEIN LEVEL FOR THE DIET OF MUDFISH FINGERLINGS IN AN OUTDOOR REARING SYSTEM. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 104-109. 1989. FR 35(1)

90-000057 Madu, C. T.; E. O. Ita; W. S. Omorinkoba and A. Pandogari. PRELIMINARY ESTIMATION OF GROWTH AND SURVIVAL IN MUDFISH (*CLARIAS ANGUILLARIS*) HATCHLINGS UNDER INDOOR HATCHERY MANAGEMENT. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 95-105. 1989. FR 35(1)

90-000058 Mims, Steven D.; Michael C. Cremer and James H. Tidwell. METHOD FOR THE PRODUCTION OF CHANNEL CATFISH FINGERLINGS IN KENTUCKY. *Prog. Fish-Cult.* 51(3):171-173. 1989. FR 35(1)

[Comm. Res. Serv., Aquacult. Res. Cent., Ky. State Univ., Frankfort 40601] *Ictalurus punctatus*.

WARMWATER CULTURE (CONTINUED)

90-000059 Nakao, Shigeru; Noor Azhar Mohd. Shazili and Haji Umar Salleh. BENTHIC COMMUNITIES IN THE AREAS UNDER AND AROUND THE FISH-CULTURE RAFTS AT THE KUALA TRENGGANU RIVER ESTUARY, MALAYSIA. *Bull. Fac. Fish. Hokkaido Univ.* 40(3):154-158. 1989. In English. FR 35(1)
[Lab. Maricult., Fac. Fish., Hokkaido Univ., Hakodate, Japan]

90-000060 Omorinkoba, W. S.; E. O. Ita and S. Mohammed. STUDIES ON THE BIOLOGY OF *HETEROTIS NILOTICUS* (CUVIER) FAM. OSTEOGLOSSIDAE IN THE NATIONAL INSTITUTE FOR FRESHWATER FISHERIES RESEARCH (NIFFR) FISH POND. II: GROWTH PERFORMANCE AND PRODUCTION OF *HETEROTIS NILOTICUS, CLARIAS GARIEPINUS* AND *OREOCHROMIS NILOTICUS* REARED IN A SEMI-INTENSIVE POLYCULTURE SYSTEM. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 124-132. 1989. FR 35(1)

90-000061 Otubusin, S. O. and S. O. Onyeabo. THE EFFECT OF DIFFERENT AGRO-INDUSTRIAL WASTES (ADDED TO CONSTANT AMOUNT OF FISHMEAL) ON TILAPIA (*OREOCHROMIS NILOTICUS*) FINGERLINGS PRODUCTION IN FLOATING BAMBOO NET-HAPAS. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 133-137. 1989. FR 35(1)

90-000062 Otubusin, S. O.; S. A. Bello and C. C. Mbonu. THE EFFECT OF STOCKING DENSITY ON TILAPIA PRODUCTION IN FLOATING BAMBOO NET CAGES. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 138-144. 1989. FR 35(1)
Tilapia nilotica.

90-000063 Sado, E. K. TILAPIA FEEDS AND NUTRITION: SCREENING OF EXPERIMENTAL DIETS FOR THE SEMI-INTENSIVE CULTURE OF TILAPIA. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 167-174. 1989. FR 35(1)
Tilapia galilaea.

90-000064 Schlott, Gunther. [THE CHEMISTRY OF FISH CULTURE PONDS.] *Osterreichs Fischerei* 42(11/12):272-276. 1989. In German with English summ. FR 35(1)
[Okol. Stn. Waldviertel, Gebharts 33, A-3943 Schrems, Austria] *Cyprinus carpio.*

90-000065 Van Olst, Jon C. and James M. Carlberg. COMMERCIAL CULTURE OF HYBRID STRIPED BASS: STATUS AND POTENTIAL. *Aquacult. Mag.* 16(1):49-59. 1990. FR 35(1)
Morone saxatilis.

90-000066 Yap Siaw-Yang; Ong Hean-Tatt and Lim Kim-Seng. FORMULATION OF AQUACULTURE DEVELOPMENT AT AN OX-BOW LAKE IN MALAYSIA: ECONOMIC FEASIBILITY ANALYSIS. *Aquacult. Fish. Manage.* 20(4):427-439. 1989. FR 35(1)
[Zool. Dep., Univ. Malaya, 59100 Kuala Lumpur, Malaysia]

90-000067 Zieba, Jerzy and Magdalena Szarowska. MACROBENTHOS OF PRODUCTIVE CARP PONDS WITH DIFFERENT LEVELS OF INTENSIFICATION OF SECOND YEAR CARP REARING. *Acta Hydrobiol.* 29(4):465-477. 1987. In English with Polish summ. FR 35(1)
[Polish Acad. Sci., Inst. Freshwater Biol., ul. Slawkowska 17, 31-016 Krakow, Poland] *Cyprinus carpio.*

MARICULTURE

90-000068 Cruz, E. M. and M. Ridha. PRELIMINARY STUDY ON THE PRODUCTION OF THE TILAPIA, *OREOCHROMIS SPILURUS* (GUNTHER), CULTURED IN SEAWATER CAGES. *Aquacult. Fish. Manage.* 20(4):381-388. 1989. FR 35(1)
[Maricult. & Fish. Dep., Kuwait Inst. Sci. Res., P.O. Box 24885, 13109 Safat, Kuwait]

90-000069 Garratt, P.; S. Chater and J. Ballard. PRELIMINARY INVESTIGATION INTO REARING SANTER SEABREAM *CHEIMERIUS NUFAR* EHRENBERG, 1830 (PISCES: SPARIDAE). *Aquaculture* 81(3/4):285-289. 1989. FR 35(1)
[Oceanogr. Res. Inst., P.O. Box 10712, Marine Parade, 4056 Durban, South Africa]

90-000070 Hopkins, K. D.; M. Ridha; D. Leclercq; A.-A. Al-Merri and T. Al-Ahmad. SCREENING TILAPIA FOR CULTURE IN SEA WATER IN KUWAIT. *Aquacult. Fish. Manage.* 20(4):389-397. 1989. FR 35(1)
[Coll. Agric., Univ. Hawaii, Hilo 96720] *Tilapia aurea* and *T. spilurus.*

90-000071 Morishita, Tatsuo; Kazuaki Uno; Toshiyoshi Araki and Takashi Takahashi. COMPARISON OF THE AMOUNTS OF EXTRACTIVE NITROGENOUS CONSTITUENTS IN THE MEATS OF CULTURED RED SEA BREAM OF DIFFERENT LOCALITIES AND CULTURE METHODS, AND THOSE OF WILD FISH. *Nippon Suisan Gakkaishi* 55(9):1565-1573. 1989. In English with Japanese summ. FR 35(1)
[Fac. Bioresour., Mie Univ., Tsu, Mie 514, Japan] *Chrysophrys major.*

90-000072 Ostrowski, Anthony C. EFFECT OF REARING TANK BACKGROUND COLOR ON EARLY SURVIVAL OF DOLPHIN LARVAE. *Prog. Fish-Cult.* 51(3):161-163. 1989. FR 35(1)
[Oceanic Inst., Makapuu Point, P.O. Box 25280, Honolulu, HI 96825] *Coryphaena hippurus.*

90-000073 Shin, Suk-Woo; Kyoo-Jin Jung; Seong-Woo Kim and Seung-Hee Park. [IDENTIFICATION OF THE PROTEASE PRODUCING BACTERIA TO USE FISH MEAL WASTEWATER AND THE PRODUCING CONDITIONS FOR THE ENZYME.] *Bull. Korean Fish. Soc.* 22(3):138-146. 1989. In Korean with English summ. FR 35(1)
[Dep. Food Sci. & Technol., Natl. Fish. Univ. Yeosu, Kuk dong Yeosu 195, South Korea]

90-000074 Siddall, Scott E.; Joseph A. Atchue III and Robert L. Murray, Jr. MARICULTURE DEVELOPMENT IN MANGROVES: A CASE STUDY OF THE PHILIPPINES, ECUADOR AND PANAMA. *Renewable Resour. Inf. Ser. Coastal Manage. Publ.* No. 3. p. 1-64. 1985. FR 35(1)

90-000075 Sommer, F.; J. Christiansen; P. Ferrante; R. Gary; B. Grey; C. Farwell and D. Powell. HUSBANDRY OF THE OCEAN SUNFISH, *MOLA MOLA. AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 410-417. 1989. FR 35(1)

90-000076 Watanabe, Takeshi. INTENSIVE MARINE FARMING IN JAPAN. *In: Intensive Fish Farming. C. Jonathan Shepherd and Niall R. Bromage, editors.* p. 239-267. 1988. FR 35(1)
[Lab. Fish Nutr., Tokyo Univ. Fish., Konan 4-5-7, Minato-ku, Tokyo 108, Japan]

FEEDS, FEEDING, AND NUTRITION

90-000077 Beveridge, M. C. M.; M. Begum; G. N. Frerichs and S. Millar. THE INGESTION OF BACTERIA IN SUSPENSION BY THE TILAPIA *OREOCHROMIS NILOTICUS*. *Aquaculture* 81(3/4):373-378. 1989. FR 35(1)
[Inst. Aquacult., Univ. Stirling, Stirling FK9 4LA, Scotland]

90-000078 Bogatova, I. B. and N. P. Zhemayeva. NATURAL FOOD SUPPLY AND FOOD AVAILABILITY COEFFICIENT OF REARING PONDS AFTER INTRODUCTION OF CRUSTACEANS AND AT VARIOUS FISH STOCKING DENSITIES. *Hydrobiol. J. (Engl. Transl. Gidrobiol. Zh.)* 23(5):92-97. 1987. From Ecol. Abstr. 89(5):89L/05638. 1989. FR 35(1)
Cyprinus carpio.

90-000079 Brown, Paul B. and E. H. Robinson. COMPARISON OF PRACTICAL CATFISH FEEDS CONTAINING 26 OR 30% PROTEIN. *Prog. Fish-Cult.* 51(3):149-151. 1989. FR 35(1)
[Purdue Univ., Dep. For. & Nat. Resour., For. Bldg., West Lafayette, IN 47907]
Ictalurus punctatus.

90-000080 Cai, Zheng Wei. ENERGY UTILIZATION BY YOUNG GRASS CARP FED DIFFERENT DIETS. *Ph.D. dissertation, Oreg. State Univ.* 146p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1704. 1989. Order No. DA8918659. FR 35(1)
Ctenopharyngodon idella.

90-000081 Campton, Donald E. and Craig A. Busack. SIMPLE PROCEDURE FOR DECAPSULATING AND HATCHING CYSTS OF BRINE SHRIMP (*ARTEMIA* SPP.). *Prog. Fish-Cult.* 51(3):176-179. 1989. FR 35(1)
[Dep. Fish. & Aquacult., Univ. Fla., 7922 NW 71st St., Gainesville 32606]

90-000082 D'Mello, J. P. F.; M. H. Al-Salman and D. H. Mills. RESPONSES OF FINGERLING CARP, *CYPRINUS CARPIO* L., TO DIETARY LYSINE. *Aquacult. Fish. Manage.* 20(4):417-426. 1989. FR 35(1)
[Dep. Agric., Univ. Edinburgh, W. Mains Rd., Edinburgh EH9 3JG, Scotland]

90-000083 Dave, Goran. EXPERIENCES WITH WASTEWATER-CULTURED *DAPHNIA* IN THE START-FEEDING OF RAINBOW TROUT (*SALMO GAIRDNERI*). *Aquaculture* 79(1-4):337-343. 1989. FR 35(1)
[Dep. Zoophysiol., Univ. Goteborg, Box 250 59, 400 31 Goteborg, Sweden]

90-000084 Davies, S. J. COMPARATIVE PERFORMANCE OF JUVENILE RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON, FED TO SATIATION WITH SIMULATED 'STANDARD' AND 'HIGH ENERGY' DIET FORMULATIONS. *Aquacult. Fish. Manage.* 20(4):407-416. 1989. FR 35(1)
[Fish Feed Technol./Nutr. Unit, Dep. Biol. Sci., Polytechnic, S.W., Drake Circus, Plymouth, Devon PL4 8AA, England]

90-000085 de la Higuera, M.; M. Garcia Gallego; A. Sanz; M. C. Hidalgo and M. D. Suarez. UTILIZATION OF DIETARY PROTEIN BY THE EEL (*ANGUILLA ANGUILLA*): OPTIMUM DIETARY PROTEIN LEVELS. *Aquaculture* 79(1-4):53-61. 1989. FR 35(1)
[Dep. Biol. Anim., Ecol. & Genet., Fac. Cienc., Univ. Granada, 18071 Granada, Spain]

90-000086 Eskelinen, Paivi. EFFECTS OF DIFFERENT DIETS ON EGG PRODUCTION AND EGG QUALITY OF ATLANTIC SALMON (*SALMO SALAR* L.). *Aquaculture* 79(1-4):275-281. 1989. FR 35(1)

FEEDS, FEEDING, AND NUTRITION (CONTINUED)

90-000086 CONTINUED
[Finnish Game & Fish. Res. Inst., Laukaa Fish Cult. Res. Stn., SF-41360 Valkola, Finland]

90-000087 Fauconneau, Benoit; Jeannine Breque and Christophe Bielle. INFLUENCE OF FEEDING ON PROTEIN METABOLISM IN ATLANTIC SALMON (*SALMO SALAR*). *Aquaculture* 79(1-4):29-36. 1989. FR 35(1)
[Fish Physiol. Lab., INRA, Campus Beaulieu, Ave. General Leclerc, F-35042 Rennes Cedex, France]

90-000088 Garatun-Tjeldsto, O.; I. Opstad; T. Hansen and I. Huse. FISH ROE AS A MAJOR COMPONENT IN START-FEED FOR MARINE FISH LARVAE. *Aquaculture* 79(1-4):353-362. 1989. FR 35(1)
[Univ. Bergen, Dep. Biochem., Arstadveien 19, N-5000 Bergen, Norway] *Gadus morhua* and *Pleuronectes platessa*.

90-000089 Gatlin, Delbert M. III and Harold F. Phillips. DIETARY CALCIUM, PHYTATE AND ZINC INTERACTIONS IN CHANNEL CATFISH. *Aquaculture* 79(1-4):259-266. 1989. FR 35(1)
[Dep. Wildl. & Fish. Sci., Tex. A&M Univ., College Station 77843-2258] *Ictalurus punctatus*.

90-000090 Goes, Jose Angelo Wenceslau and Raul Jorge H. Castro Gomez. [INFLUENCE OF FOOD SOURCES AND COOLING DELAY ON ORGANOLEPTIC CHARACTERISTICS OF "TILAPIA" FISH (*OREOCHROMIS NILOTICUS* LINNAEUS).] *Cienc. Prat.* 11(2):156-163. 1987. In Portuguese with English summ. FR 35(1)
[Dep. Cienc. Aliment., Fac. Nutr., Univ. Fed. Bahia, Salvador, Brazil]

90-000091 Gousseva, S. S.; N. A. Abross Mova; I. G. Korpakova and N. D. Kozhina. [A POSSIBILITY OF CHEMICAL PRODUCTION WASTE APPLICATION IN FISH FARMING.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 166-170, 270-271. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

90-000092 Grover, Jill J.; Bori L. Olla; Margaret O'Brien and Robert I. Wicklund. FOOD HABITS OF FLORIDA RED TILAPIA FRY IN MANURED SEAWATER POOLS IN THE BAHAMAS. *Prog. Fish-Cult.* 51(3):152-156. 1989. FR 35(1)
[Coll. Oceanogr., Oreg. State Univ., Hatfield Mar. Sci. Cent., Newport 97365] *Tilapia urolepis* and *Tilapia mossambica*.

90-000093 Hossain, Md. Arshad. NUTRITIONAL EVALUATION OF SOME BANGLADESHI OILSEED BY-PRODUCTS AS DIETARY PROTEIN SOURCES FOR COMMON CARP (*CYPRINUS CARPIO* L.). *Ph.D. dissertation, Univ. Stirling (United Kingdom)* 380p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1706. 1989. Order No. BRD-86142. FR 35(1)

90-000094 Houlihan, D. F.; S. J. Hall and C. Gray. EFFECTS OF RATION ON PROTEIN TURNOVER IN COD. *Aquaculture* 79(1-4):103-110. 1989. FR 35(1)
[Dep. Zool., Univ. Aberdeen, Tillydrome Ave., Aberdeen AB9 2TN, Scotland] *Gadus morhua*.

FEEDS, FEEDING, AND NUTRITION (CONTINUED)

90-000095 Jobling, M.; B. M. Baardvik and E. H. Jorgensen. INVESTIGATION OF FOOD-GROWTH RELATIONSHIPS OF ARCTIC CHARR, *SALVELINUS ALPINUS* L., USING RADIOGRAPHY. *Aquaculture* 81(3/4):367-372. 1989. FR 35(1)
[Norwegian Coll. Fish. Sci., Univ. Tromso, N-9000 Tromso, Norway]

90-000096 Jorgensen, E. H. and M. Jobling. PATTERNS OF FOOD INTAKE IN ARCTIC CHARR, *SALVELINUS ALPINUS*, MONITORED BY RADIOGRAPHY. *Aquaculture* 81(2):155-160. 1989. FR 35(1)
[Norwegian Coll. Fish. Sci., Univ. Tromso, Dramsveien 201, N-9000 Tromso, Norway]

90-000097 Kaushik, S. J.; F. Medale; B. Fauconneau and D. Blanc. EFFECT OF DIGESTIBLE CARBOHYDRATES ON PROTEIN/ENERGY UTILIZATION AND ON GLUCOSE METABOLISM IN RAINBOW TROUT (*SALMO GAIRDNERI* R.). *Aquaculture* 79(1-4):63-74. 1989. FR 35(1)
[Lab. Nutr. Poissons, INRA, 64310 Saint Pee-sur-Nivelle, France]

90-000098 Ketola, H. George; Charlie E. Smith and Greg A. Kindschi. INFLUENCE OF DIET AND OXIDATIVE RANCIDITY ON FRY OF ATLANTIC AND COHO SALMON. *Aquaculture* 79(1-4):417-423. 1989. FR 35(1)
[U.S. Fish & Wild. Serv., Tunison Lab. Fish Nutr., 3075 Gracie Rd., Cortland, NY 13045] *Salmo salar* and *Oncorhynchus kisutch*.

90-000099 Kiessling, A.; T. Storebakken; T. Asgard; I. L. Andersson and K.-H. Kiessling. PHYSIOLOGICAL CHANGES IN MUSCLE OF RAINBOW TROUT FED DIFFERENT RATION LEVELS. *Aquaculture* 79(1-4):293-301. 1989. FR 35(1)
[Dep. Anim. Nutr. & Manage., Swedish Univ. Agric. Sci., P.O. Box 7024, S-750 07 Uppsala, Sweden] *Oncorhynchus mykiss*.

90-000100 Kiessling, A.; L. Johansson and T. Storebakken. EFFECTS OF REDUCED FEED RATION LEVELS ON FAT CONTENT AND FATTY ACID COMPOSITION IN WHITE AND RED MUSCLE FROM RAINBOW TROUT. *Aquaculture* 79(1-4):169-175. 1989. FR 35(1)
[Dep. Anim. Nutr. & Manage., Swedish Univ. Agric. Sci., P.O. Box 7024, S-750 07 Uppsala, Sweden] *Oncorhynchus mykiss*.

90-000101 Klar, Gerald T. and Nick C. Parker. EVALUATION OF FIVE COMMERCIALLY PREPARED DIETS FOR STRIPED BASS. *Prog. Fish-Cult.* 51(3):115-120. 1989. FR 35(1)
[U.S. Fish & Wildl. Serv., Marquette Biol. Stn., 446 E. Crescent St., Marquette, MI 49855] *Morone saxatilis*.

90-000102 Kohbara, Jun; Kazuya Fukuda and Iwao Hidaka. [THE FEEDING-STIMULATORY EFFECTS OF JACK MACKEREL MUSCLE EXTRACTS ON THE YOUNG YELLOWTAIL *SERIOLA QUINQUERADIATA*.] *Nippon Suisan Gakkaishi* 55(8):1343-1347. 1989. In Japanese with English summ. FR 35(1)
[Lab. Fish Physiol., Fac. Bioresour., Mie Univ., Tsu, Mie 514, Japan]

90-000103 Lied, Einar, editor. INTERNATIONAL SYMPOSIUM ON FEEDING AND NUTRITION IN FISH. BERGEN, NORWAY, 23-27 AUGUST 1987. *Aquaculture* 79(1-4):1-428. 1989. FR 35(1)
[Inst. Nutr., P.O. Box 1900, N-5024 Bergen, Norway]

FEEDS, FEEDING, AND NUTRITION (CONTINUED)

90-000104 Lovell, Tom. CRITICAL REVIEW OF NUTRITION RESEARCH METHODS. *Aquacult. Mag.* 15(6):57-59. 1989. FR 35(1)
[Fish. & Allied Aquacult., Auburn Univ., Auburn, AL]

90-000105 Lovell, Tom. FEEDING THE TURBOT. *Aquacult. Mag.* 16(1):60-61. 1990. FR 35(1)
Scophthalmus maximus.

90-000106 Lupianez, J. A.; M. J. Sanchez-Lozano; L. Garcia-Rejon and M. de la Higuera. LONG-TERM EFFECT OF A HIGH-PROTEIN/NON-CARBOHYDRATE DIET ON THE PRIMARY LIVER AND KIDNEY METABOLISM IN RAINBOW TROUT (*SALMO GAIRDNERI*). *Aquaculture* 79(1-4):91-101. 1989. FR 35(1)
[Dep. Bioquim. & Biol. Mol., Univ. Granada, 18001 Granada, Spain]

90-000107 Luquet, Pierre. PRACTICAL CONSIDERATIONS ON THE PROTEIN NUTRITION AND FEEDING OF TILAPIA. *Aquat. Living Resour.* 2(2):99-104. 1989. In English with French summ. FR 35(1)
[INRA, Lab. Hydrobiol., BP n° 709, 97387 Kourou, French Guiana] *Tilapia nilotica, T. mossambica, T. aurea, T. zilli,* and *T. hornorum.*

90-000108 Maage, Amund; Harald Sveier and Kaare Julshamn. A COMPARISON OF GROWTH RATE AND TRACE ELEMENT ACCUMULATION IN ATLANTIC SALMON (*SALMO SALAR*) FRY FED FOUR DIFFERENT COMMERCIAL DIETS. *Aquaculture* 79(1-4):267-273. 1989. FR 35(1)
[Inst. Nutr., Dir. Fish., P.O. Box 1900, N-5024 Bergen, Norway]

90-000109 Meyer-Burgdorff, K.-H.; M. F. Osman and K. D. Gunther. ENERGY METABOLISM IN *OREOCHROMIS NILOTICUS*. *Aquaculture* 79(1-4):283-291. 1989. FR 35(1)
[Inst. Anim. Physiol. & Anim. Nutr., Univ. Gottingen, D-3400 Gottingen, West Germany]

90-000110 Munilla-Moran, R. and J. R. Stark. PROTEIN DIGESTION IN EARLY TURBOT LARVAE, *SCOPHTHALMUS MAXIMUS* (L.). *Aquaculture* 81(3/4):315-327. 1989. FR 35(1)
[Inst. Invest. Mar., Consejo Superior Invest. Cient., Muelle de Bouzas 6, 36208-Vigo, Spain]

90-000111 Nandeesha, M. C.; N. Basavaraja; P. Keshavanath; T. J. Varghese; H. P. C. Shetty and G. K. Srikanth. INFLUENCE OF SOYABEAN AND SQUILLA MEAL-BASED DIETS ENRICHED WITH SARDINE OIL ON THE GROWTH AND ORGANOLEPTIC QUALITY OF COMMON CARP, *CYPRINUS CARPIO* (LINN.). *Biol. Wastes* 30(1):61-69. 1989. FR 35(1)
[Varghese: Univ. Agric. Sci., Coll. Fish., Mangalore-575 002, Karnataka, India]

90-000112 Opstad, I.; B. Strand; I. Huse and O. Garatun-Tjeldsto. LABORATORY STUDIES ON THE USE OF ROTIFERS (*BRACHIONUS PLICATILIS* O.F. MULLER) AS START-FEED FOR COD LARVAE (*GADUS MORHUA* L.). *Aquaculture* 79(1-4):345-351. 1989. FR 35(1)
[Austevoll Mar. Aquacult. Stn., N-5392 Storebo, Norway]

FEEDS, FEEDING, AND NUTRITION (CONTINUED)

90-000113 Pouliot, T. and J. de la Noue. FEED INTAKE, DIGESTIBILITY AND BRAIN NEUROTRANSMITTERS OF RAINBOW TROUT UNDER HYPOXIA. *Aquaculture* 79(1-4):317-327. 1989. FR 35(1)
[de la Noue: GREREBA, c/o CREN, 1312 Pavillon Comtois, Univ. Laval, Ste-Foy, PQ, Canada G1K 7P4] *Oncorhynchus mykiss.*

90-000114 Powless, Todd F. FEEDING ON DEMAND. *Feed Manage.* 40(11):5-6, 8. 1989. FR 35(1)

90-000115 Qadri, Noorun-Nisa and Khalid Jameel. EFFECT OF DIETARY CARBOHYDRATE OF DIFFERING MOLECULAR COMPLEXITY ON THE TILAPIA *(SAROTHERODON MOSSAMBICUS). Pak. J. Sci. Ind. Res.* 32(6):382-386. 1989. FR 35(1)
[PCSIR Lab. Complex, Karachi, Pakistan]

90-000116 Schuep, Willy; Jurg Marmet and Werner Studer. STABILITY OF ASCORBATE-2-SULFATE IN TROUT FEED MEASURED BY HPLC. *Aquaculture* 79(1-4):249-258. 1989. FR 35(1)
[Dep. Vitamin & Nutr. Res., F. Hoffmann-La Roche & Co. Ltd., CH-4002 Basle, Switzerland]

90-000117 Shiau, Shi-Yen and Shu-Ling Huang. OPTIMAL DIETARY PROTEIN LEVEL FOR HYBRID TILAPIA *(OREOCHROMIS NILOTICUS* X *O. AUREUS)* REARED IN SEAWATER. *Aquaculture* 81(2):119-127. 1989. FR 35(1)
[Dep. Mar. Food Sci., Natl. Taiwan Ocean Univ., Keelung 20224, Taiwan]

90-000118 Stradmeyer, L. A BEHAVIOURAL METHOD TO TEST FEEDING RESPONSES OF FISH TO PELLETED DIETS. *Aquaculture* 79(1-4):303-310. 1989. FR 35(1)
[Freshwater Fish. Lab., Pitlochry, Perthshire PH16 5LB, Scotland] *Salmo salar.*

90-000119 Teskeredzic, Zlatica; Emin Teskeredzic and Leon Malnar. HIGH MORTALITY OF RAINBOW TROUT *(SALMO GAIRDNERI)* IN YUGOSLAVIAN FISH FARMS CAUSED BY INADEQUATE FEED QUALITY. *Aquaculture* 79(1-4):391-395. 1989. FR 35(1)
["Ruder Boskovic" Inst., Cent. Mar. Res., Bijenicka 54, 41000 Zagreb, Yugoslavia]

90-000120 Teskeredzic, Zlatica; Emin Teskeredzic and Mato Hacmanjek. HIGH MORTALITY OF RAINBOW TROUT *(SALMO GAIRDNERI)* FRY CAUSED BY DEFICIENCY OF VITAMINS C AND B_2 IN COMMERCIAL FISH FARMS IN YUGOSLAVIA. *Aquaculture* 79(1-4):245-248. 1989. FR 35(1)
["Ruder Boskovic" Inst., Cent. Mar. Res., Bijenicka 54, 41000 Zagreb, Yugoslavia]

90-000121 Thomassen, Magny S. and Camilla Rosjo. DIFFERENT FATS IN FEED FOR SALMON: INFLUENCE ON SENSORY PARAMETERS, GROWTH RATE AND FATTY ACIDS IN MUSCLE AND HEART. *Aquaculture* 79(1-4):129-135. 1989. FR 35(1)
[Agric. Res. Counc., Inst. Aquacult. Res., P.O. Box 10, 1432 As-NLH, Norway] *Salmo salar.*

90-000122 Torrissen, Ole J. PIGMENTATION OF SALMONIDS: INTERACTIONS OF ASTAXANTHIN AND CANTHAXANTHIN ON PIGMENT DEPOSITION IN RAINBOW TROUT. *Aquaculture* 79(1-4):363-374. 1989. FR 35(1)
[Dir. Fish., Inst. Mar. Res., Matre Aquacult. Stn., N-5198 Matredal, Norway] *Oncorhynchus mykiss.*

FEEDS, FEEDING, AND NUTRITION (CONTINUED)

90-000123 Von der Decken, A. RATION SIZE IN THE FEEDING OF COD *(GADUS MORHUA)*: EFFECT ON SKELETAL MUSCLE PROTEINS, WITH SPECIAL REFERENCE TO MYOSIN HEAVY CHAIN. *Aquaculture* 79(1-4):47-52. 1989. FR 35(1)
[Wenner-Gren Inst. Exp. Biol., Univ. Stockholm, S-106 91 Stockholm, Sweden]

90-000124 Vorob'yeva, A. A. and R. S. Nikonova. REARING OF THE GAMMARIDS *DIKEROGAMMARUS HAWMOBAPHES* AND *NIPHARGOIDES MAEOTICUS*. *Hydrobiol. J. (Engl. Transl. Gidrobiol. Zh.)* 23(6):50-54. 1987. From Ecol. Abstr. 89(6):89L/06663. 1989. FR 35(1)

90-000125 Wee, Kok Leong and Shao-Wu Shu. THE NUTRITIVE VALUE OF BOILED FULL-FAT SOYBEAN IN PELLETED FEED FOR NILE TILAPIA. *Aquaculture* 81(3/4):303-314. 1989. FR 35(1)
[Div. Agric. & Food Eng., Asian Inst. Technol., P.O. Box 2754, Bangkok 10501, Thailand] *Tilapia nilotica.*

90-000126 Wilson, Robert P.; William E. Poe and Edwin H. Robinson. EVALUATION OF L-ASCORBYL-2-POLYPHOSPHATE (AsPP) AS A DIETARY ASCORBIC ACID SOURCE FOR CHANNEL CATFISH. *Aquaculture* 81(2):129-136. 1989. FR 35(1)
[Dep. Biochem., Miss. State Univ., Mississippi State 39762] *Ictalurus punctatus.*

AQUARIUMS

90-000127 American Association of Zoological Parks and Aquariums. PROCEEDINGS OF THE REGIONAL CONFERENCES OF THE AMERICAN ASSOCIATION OF ZOOLOGICAL PARKS AND AQUARIUMS. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* 1009p. 1989. Available at $50.00 from AAZPA. FR 35(1)
Selected papers indexed in this issue of *Fisheries Review.*

90-000128 Atkinson, Janet and Greg Tjosvold. WELCOME TO THE FRONT LINE: TECHNOLOGICAL INNOVATION AT THE VANCOUVER PUBLIC AQUARIUM. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 336-337. 1989. FR 35(1)

90-000129 Baron, N. E. THE NATURAL AND CULTURAL HISTORY OF THAILAND'S FRESHWATER FISHES: A THEMATIC DISPLAY FOR A SMALL AREA. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 289-294. 1989. FR 35(1)

90-000130 Bres, Mimi and Sandra White. INTERACTIVES IN THE AQUARIUM: THERE'S MORE TO DO THAN LOOK AT FISH. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 936-943. 1989. FR 35(1)
[New England Aquarium, Central Wharf, Boston, MA 02110]

90-000131 Dokken, Quenton R. TEXAS STATE AQUARIUM: FROM CONCEPT TO REALITY. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 760-765. 1989. FR 35(1)
[State Aquarium, Corpus Christi, TX]

90-000132 Domske, Helen M. THE GREAT LAKES ON A DROP-IN-THE-BUCKET BUDGET. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 856-858. 1989. FR 35(1)

AQUARIUMS (CONTINUED)

90-000133 Duggan, Richard E. THE THINKING GALLERY: DEVELOPING INTERACTIVE EXHIBITS AT THE NEW ENGLAND AQUARIUM. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 867-874. 1989. FR 35(1)

90-000134 Emmens, C. W. THE NATURAL SYSTEM FOR MARINE AQUARIA. *Trop. Fish Hobbyist* 38(4):70-75, 78-81. 1989. FR 35(1)

90-000135 Friese, U. Erich and Les Gilbert. THE SYDNEY AQUARIUM -- AN EXPERIENCE IN SIGHT AND SOUND. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 458-465. 1989. FR 35(1)

90-000136 Giovanetti, Thomas A. THE HARLEQUIN TUSK: A WRASSE FOR ALL SEASONS. *Trop. Fish Hobbyist* 38(4):54-58. 1989. FR 35(1)
Lienardella fasciata.

90-000137 Hunziker, Ray. THE UNDERRATED CONGO TETRA. *Trop. Fish Hobbyist* 38(4):82-86. 1989. FR 35(1)
Phenacogrammus interruptus.

90-000138 Kelsey, Elin. PARAMETERS FOR CONSIDERATION IN THE PLANNING AND DESIGN OF A NEW EXHIBIT - ARCTIC CANADA. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 267-275. 1989. FR 35(1)

90-000139 McAdam, D. W. ENGINEERING PROBLEMS: ASSISTANCE AVAILABLE. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 439-442. 1989. FR 35(1)

90-000140 Palicka, Jiri. THE BROWN-TAILED PENCILFISH, *NANNOSTOMUS EQUES. Trop. Fish Hobbyist* 38(4):34-36, 39-41. 1989. FR 35(1)

90-000141 Prescott, John H. AQUARIUMS IN THE UNITED STATES: TRENDS AND ECONOMIC IMPACT; A NEW ROLE FOR URBAN CULTURAL INSTITUTIONS. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 846-849. 1989. FR 35(1)
[New England Aquarium, Boston, MA 02110]

90-000142 Richter, Hans-Joachim. BREEDING THE PERSIAN PUPFISH, *APHANIUS MENTO. Trop. Fish Hobbyist* 38(4): 10-14, 17, 22-25. 1989. FR 35(1)

MISCELLANEOUS CULTURE TECHNIQUES AND EQUIPMENT

90-000143 Herman, Lawrence J. INEXPENSIVE METHOD FOR REPAIR OF YSI MODEL 403 THERMISTOR PROBES. *Prog. Fish-Cult.* 51(3):170-171. 1989. FR 35(1)
[U.S. Environ. Protection Agency, Environ. Res. Lab., 6201 Congdon Blvd., Duluth, MN 55804]

90-000144 Kindschi, Greg A.; Charlie E. Smith and Speros K. Doulos. USE OF THE AQUATECTOR® OXYGENATION SYSTEM FOR IMPROVING THE QUALITY OF FISH-REARING WATER. *Prog. Fish-Cult.* 51(3):140-145. 1989. FR 35(1)
[U.S. Fish & Wildl. Serv., Fish Technol. Cent., 4050 Bridger Canyon Rd., Bozeman, MT 59715]

MISCELLANEOUS CULTURE TECHNIQUES AND EQUIPMENT (CONTINUED)

90-000145 Pelissero, Catherine; Blandine Cuisset and Francoise Le Menn. THE INFLUENCE OF SEX STEROIDS IN COMMERCIAL FISH MEALS AND FISH DIETS ON PLASMA CONCENTRATION OF ESTROGENS AND VITELLOGENIN IN CULTURED SIBERIAN STURGEON *ACIPENSER BAERI*. *Aquat. Living Resour.* 2(3):161-168. 1989. In English with French summ. FR 35(1)
[Lab. Biol. Mar., Univ. Bordeau-I, Ave. Facultes, 33405 Talence Cedex, France]

90-000146 Rach, J. J. and T. D. Bills. CRAYFISH CONTROL WITH TRAPS AND LARGEMOUTH BASS. *Prog. Fish-Cult.* 51(3):157-160. 1989. FR 35(1)
[Natl. Fish. Res. Cent., U.S. Fish & Wildl. Serv., P.O. Box 818, La Crosse, WI 54602] *Micropterus salmoides.*

GENERAL LIMNOLOGY AND OCEANOGRAPHY

90-000147 Graham, A. A. THE IMPACT OF FINE SILT ON EPILITHIC PERIPHYTON, AND POSSIBLE INTERACTIONS BETWEEN PERIPHYTON AND INVERTEBRATE CONSUMERS. *Verh. Int. Ver. Limnol.* 23(3):1437-1440. 1988. FR 35(1)
[Dep. Zool., Univ. Otago, P.O. Box 56, Dunedin, New Zealand]

PHYSICAL LIMNOLOGY AND OCEANOGRAPHY

90-000148 Drinkwater, K. F. and R. W. Trites. OVERVIEW OF ENVIRONMENTAL CONDITIONS IN THE NORTHWEST ATLANTIC IN 1987. *Northwest Atl. Fish. Organ. Sci. Counc. Stud.* No. 13. p. 27-40. 1989. FR 35(1)
[Dep. Fish. & Oceans, Physical & Chem. Sci. Branch, Bedford Inst. Oceanogr., P.O. Box 1006, Dartmouth, NS, Canada B2Y 4A2]

90-000149 Judd, A. G. and M. Hovland. THE ROLE OF CHEMOSYNTHESIS IN SUPPORTING FISH STOCKS IN THE NORTH SEA. *J. Fish Biol.* 35(Suppl. A):329-330. 1989. FR 35(1)
[School Environ. Technol., Sunderland Polytechnic, England]

CHEMICAL LIMNOLOGY AND OCEANOGRAPHY

90-000150 Brown, D. J. A. EFFECT OF ATMOSPHERIC N DEPOSITION ON SURFACE WATER CHEMISTRY AND THE IMPLICATIONS FOR FISHERIES. *Environ. Pollut.* 54(3-4):275-284. 1988. From Ecol. Abstr. 89(6):89L/06537. 1989. FR 35(1)

90-000151 Eilers, J. M.; G. E. Glass; A. K. Pollack and J. A. Sorensen. CHANGES IN CONDUCTIVITY, ALKALINITY, CALCIUM, AND pH DURING A 50-YEAR PERIOD IN SELECTED NORTHERN WISCONSIN LAKES. *Can. J. Fish. Aquat. Sci.* 46(11):1929-1944. 1989. In English with French summ. FR 35(1)
[E&S Environ. Chem., Inc., 1325 NW 9th St., Corvallis, OR 97330]

90-000152 Istvanovics, Vera; Sandor Herodek and Ferenc Szilagyi. PHOSPHATE ADSORPTION BY DIFFERENT SEDIMENT FRACTIONS IN LAKE BALATON AND ITS PROTECTING RESERVOIRS. *Water Res.* 23(11):1357-1366. 1989. FR 35(1)
[Balaton Limnol. Res. Inst., Hungarian Acad. Sci., H-8237 Tihany, Hungary]

PLANKTON

90-000153 Brouardel, Jean. [VARIATION OVER TIME IN THE SEA PRIMARY PRODUCTION OFF THE COAST OF MONACO.] *Mem. Inst. Oceanogr. (Monaco)*. No. 3. 20p. 1971. In French with English and Russian summ. FR 35(1)

90-000154 Naumenko, E. N. [FOOD ZOOPLANKTON DEVELOPMENT IN RELATION TO THE HYDROGRAPHIC CONDITIONS IN THE KURSHSKY BAY, BALTIC SEA.] *Tr. Atl. Nauchno-Issled. Inst. Rybn. Khoz. Okeanogr.* No. 2089. p. 109-115, 136-137. 1988. In Russian with English summ. FR 35(1)

90-000155 Springer, Alan M. THE PARADOX OF PELAGIC FOOD WEBS ON THE BERING-CHUKCHI CONTINENTAL SHELF. *Ph.D. dissertation, Univ. Alaska (Fairbanks)* 248p. 1987. From Diss. Abstr. Int. B Sci. Eng. 50(5):1733. 1989. Order No. DA8918592. FR 35(1)

PRIMARY PRODUCTION

90-000156 Burns, Carolyn W. STARVATION RESISTANCE AMONG COPEPOD NAUPLII AND ADULTS. *Verh. Int. Ver. Limnol.* 23(4):2087-2091. 1988. FR 35(1)
[Dep. Zool., Univ. Otago, Dunedin, New Zealand]

90-000157 Gurney, S. E. and G. G. C. Robinson. THE INFLUENCE OF WATER LEVEL MANIPULATION ON METAPHYTON PRODUCTION IN A TEMPERATE FRESHWATER MARSH. *Verh. Int. Ver. Limnol.* 23(2):1032-1040. 1988. FR 35(1)
[Delta Waterfowl & Wetlands Res. Stn., RR #1, Portage la Prairie, MB, Canada R1N 3A1]

90-000158 Hanazato, Takayuki and Masayuki Yasuno. IMPACT OF PREDATION OF *NEOMYSIS INTERMEDIA* ON A ZOOPLANKTON COMMUNITY IN LAKE KASUMIGAURA. *Verh. Int. Ver. Limnol.* 23(4):2092-2098. 1988. FR 35(1)
[Div. Environ. Biol., Natl. Inst. Environ. Studies, Onogawa, Tsukuba, Ibaraki 305, Japan]

90-000159 Sarvala, Jouko; Juha Sainio; Jukka Nevalainen and Ilppo Vuorinen. POPULATION DYNAMICS AND PRODUCTION OF *BOSMINA COREGONI* IN A MESOTROPHIC LAKE HAVING HIGH PRODUCTION OF PLANKTIVOROUS FISH. *Verh. Int. Ver. Limnol.* 23(4):2067. 1988. Abstract only. FR 35(1)
[Dep. Biol., Univ. Turku, SF-20500 Turku, Finland] *Osmerus mordax* and *Coregonus* spp. in Finland.

MORPHOLOGY

90-000160 Badenhorst, A. DEVELOPMENT OF THE CHONDROCRANIUM OF THE SHALLOW-WATER CAPE HAKE *MERLUCCIUS CAPENSIS* (CAST.). PART 2: VISCEROCRANIUM. *S. Afr. J. Zool.* 24(1):49-57. 1989. In English with Afrikaans summ. FR 35(1)
[Sea Fish. Res. Inst., Private Bag X2, Roggebaai 8012, South Africa]

90-000161 Badenhorst, A. DEVELOPMENT OF THE CHONDROCRANIUM OF THE SHALLOW-WATER CAPE HAKE *MERLUCCIUS CAPENSIS* (CAST.). PART 1: NEUROCRANIUM. *S. Afr. J. Zool.* 24(1):33-48. 1989. In English with Afrikaans summ. FR 35(1)
[Sea Fish. Res. Inst., Private Bag X2, Roggebaai 8012, South Africa]

MORPHOLOGY (CONTINUED)

90-000162 Bailly, Yannick; Suzanne Dunel-Erb; Michel Geffard and Pierre Laurent. THE VASCULAR AND EPITHELIAL SEROTONERGIC INNERVATION OF THE ACTINOPTERYGIAN GILL FILAMENT WITH SPECIAL REFERENCE TO THE TROUT, *SALMO GAIRDNERI*. *Cell Tissue Res.* 258(2):349-363. 1989. FR 35(1)
[Dunel-Erb: Lab. Morphol. Fonctionnelle & Ultrastructurale Adapt., CNRS, BP. 20CR, F-67037 Strasbourg Cedex, France]

90-000163 Bellwood, D. R. and J. H. Choat. A DESCRIPTION OF THE JUVENILE PHASE COLOUR PATTERNS OF 24 PARROTFISH SPECIES (FAMILY SCARIDAE) FROM THE GREAT BARRIER REEF, AUSTRALIA. *Rec. Aust. Mus.* 41(1):1-41. 1989. FR 35(1)
[Dep. Mar. Biol., James Cook Univ., Townsville, Qld. 4811, Australia]

90-000164 Bonfil, Ramon S. AN ABNORMAL EMBRYO OF THE REEF SHARK, *CARCHARHINUS PEREZI* (POEY), FROM YUCATAN, MEXICO. *Northeast Gulf Sci.* 10(2):153-155. 1989. FR 35(1)
[Inst. Nac. Pesca, C.R.I.P. Yucalpeten A.P.-73, Progreso, Yucatan 97320, Mexico]

90-000165 Burton, D. and M. P. M. Burton. INDIVIDUAL VARIABILITY IN THE EPIDERMIS OF PRESPAWNING INSHORE WINTER FLOUNDER, *PSEUDOPLEURONECTES AMERICANUS*. *J. Fish Biol.* 35(6):845-853. 1989. FR 35(1)
[Ocean Sci. Cent., (Mar. Sci. Res. Lab.) & Dep. Biol., Memorial Univ. Newfoundland, St. John's, NF, Canada A1C 5S7]

90-000166 Carl, Leon M.; Melvin Kraft and Larry Rhude. GROWTH AND TAXONOMY OF BULL CHARR, *SALVELINUS CONFLUENTUS*, IN PINTO LAKE, ALBERTA. *Environ. Biol. Fishes* 26(4):239-246. 1989. FR 35(1)
[Ontario Minist. Nat. Resour., Res. Sect., Fish. Branch, Box 5000, Maple, ON, Canada L6A 1S9]

90-000167 Cohen, Joel L. FUNCTIONAL PATHWAYS IN THE ELASMOBRANCH RETINA. *J. Exp. Zool. Suppl.* (2):75-82. 1989. FR 35(1)
[Dep. Anat., School Med., Wright State Univ., Dayton, OH 45435] *Dasyatis sabina, Squalus acanthias, Mustelus canis*, and *Raja* spp.

90-000168 Corwin, Jeffrey T. FUNCTIONAL ANATOMY OF THE AUDITORY SYSTEM IN SHARKS AND RAYS. *J. Exp. Zool. Suppl.* (2):62-74. 1989. FR 35(1)
[Dep. Otolaryngol.-Head & Neck Surgery & Dep. Neurosci., Univ. Va. School Med., Charlottesville 22908] *Carcharhinus* spp.

90-000169 Davenport, J. and V. Thorsteinsson. OBSERVATIONS ON THE COLOURS OF LUMPSUCKERS, *CYCLOPTERUS LUMPUS* L. *J. Fish Biol.* 35(6):829-838. 1989. FR 35(1)
[Univ. Coll. N. Wales, School Ocean Sci., Mar. Sci. Lab., Menai Bridge, Gwynedd LL59 5EH, Wales]

90-000170 Feltham, M. J. and M. Marquiss. THE USE OF FIRST VERTEBRAE IN SEPARATING, AND ESTIMATING THE SIZE OF, TROUT (*SALMO TRUTTA*) AND SALMON (*SALMO SALAR*) IN BONE REMAINS. *J. Zool. (Lond.)* 219(1):113-122. 1989. FR 35(1)
[Inst. Terrestrial Ecol., Hill Brathens, Banchory, Kincardineshire AB3 4BY, Scotland]

90-000171 Gardiner, B. G. and Bobb Schaeffer. INTERRELATIONSHIPS OF LOWER ACTINOPTERYGIAN FISHES. *Zool. J. Linn. Soc.* 97(2):135-187. 1989. FR 35(1)
[Biosphere Sci., King's Coll., London W8 7AH, England]

MORPHOLOGY (CONTINUED)

90-000172 Greenwood, Peter Humphry. THE TAXONOMIC STATUS AND PHYLOGENETIC RELATIONSHIPS OF *PSEUDOCRENILABRUS* FOWLER (TELEOSTEI, CICHLIDAE). *Ichthyol. Bull. J.L.B. Smith Inst. Ichthyol.* No. 54. 16p. 1989. FR 35(1)
[J.L.B. Smith Inst. Ichthyol., Private Bag 1015, Grahamstown 6140, South Africa]

90-000173 Gruzdeva, M. A. and E. L. Vasil'yeva. DIVERGENCE BETWEEN NORTHERN PIKE, *ESOX LUCIUS*, AND AMUR PIKE, *ESOX REICHERTI*, INTERPRETED FROM CRANIOLOGICAL CHARACTERS. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):74-85. 1988. FR 35(1)
[Dep. Ichthyol. & Zool. Mus., Moscow State Univ., Moscow, USSR]

90-000174 Gubanov, E. P. MORPHOLOGICAL CHARACTERISTICS OF THE REQUIEM SHARK, *CARCHARINUS OBSCURUS*, OF THE INDIAN OCEAN. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):68-73. 1988. FR 35(1)
[Azov-Black Sea Sci.-Res. Inst. Mar. Fish. & Oceanogr., AzCherNIRO, Kerch, USSR]

90-000175 Hamlett, William C. EVOLUTION AND MORPHOGENESIS OF THE PLACENTA IN SHARKS. *J. Exp. Zool. Suppl.* (2):35-52. 1989. FR 35(1)
[Dep. Anat., Med. Coll. Ohio, Toledo 43699]

90-000176 Hara, Masahiro; Mika Yoshida and Akira Tonosaki. FINE STRUCTURAL AND VOLUMETRIC CHANGES OF LAMPREY PHOTORECEPTOR CELLS DURING LIGHT AND DARK PERIODS. *Cell Tissue Res.* 259(1):33-41. 1990. FR 35(1)
[Tonosaki: Dep. Anat., Yamagata Univ. School Med., Yamagata 990-23, Japan] *Lampetra japonica*.

90-000177 Isokawa, Keitaro; Minoru Takagi and Yoshihisa Toda. ULTRASTRUCTURAL AND CYTOCHEMICAL STUDY OF ELASTIC FIBERS IN THE VENTRAL AORTA OF A TELEOST, *ANGUILLA JAPONICA*. *Anat. Rec.* 226(1):18-26. 1990. FR 35(1)
[Dep. Anat. & Cell. Biol., Med. Coll. Wis., Milwaukee 53226]

90-000178 Jose, M. M. and Amitabh Hore. PINEAL ORGAN IN AN INDIAN SPINY EEL, *MACROGNATHUS ACULEATUS* BLOCH (MASTACEMBELIFORMES). *Zool. Anz.* 223(1/2):110-115. 1989. FR 35(1)
[Dep. Zool., Ranchi Univ., Ranchi-834 008, India]

90-000179 Kotlyar, A. N. MATERIAL ON THE SYSTEMATICS AND BIOLOGY OF THE BERYCIFORM FISHES *MONOCENTRIS REEDI* AND *POLYMIXIA YURI* FROM THE NASKA SUBMARINE RIDGE. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):146-150. 1988. FR 35(1)

90-000180 Lacy, E. R.; L. Luciano and E. Reale. FLAGELLAR CELLS AND CILIARY CELLS IN THE RENAL TUBULE OF ELASMOBRANCHS. *J. Exp. Zool. Suppl.* (2):186-192. 1989. FR 35(1)
[Dep. Anat. & Cell Biol., Med. Univ. S.C., Charleston] *Raja erinacea, Squalus acanthias, Mustelus canis, Rhizoprionodon terraenovae, Sphyrna lewini*, and *Rhinoptera bonasus*.

90-000181 Lakshmi, K. and K. Srinivasa Rao. POSTCRANIAL SKELETON OF THE MARINE CATFISH *ARIUS TENUISPINIS* (OSTEICHTHYES: SILURIFORMES, ARIIDAE). *J. Morphol.* 202(3):361-377. 1989. FR 35(1)

MORPHOLOGY (CONTINUED)

90-000181 CONTINUED
[Srinivasa Rao: Dep. Zool., Andhra Univ., Waltair-530 003, Visakhapatnam, Andhra Pradesh, India]

90-000182 Lan Houzhen; Qu Shuhui; Chen Yanqing and Yong Jiben. [STUDY ON THE EGG STRUCTURE OF *TILAPIA NILOTICA* (L.).] *Acta Zool. Sin.* 35(1):107-108. 1989. In Chinese. FR 35(1)
[Dep. Biol., Shandong Univ., Jinan, China]

90-000183 Liu Shiyi and Song Xiue. [THE SPINAL CORD OF *LAMPETRA MORI* THE EASTERN ANCIENT RELICT OF PETROMYZONTIFORMES.] *Acta Zool. Sin.* 35(1):11-15. 1989. In Chinese with English summ. FR 35(1)
[Shanghai Inst. Physiol., Acad. Sinica, Shanghai, China]

90-000184 Loir, Maurice; Chantal Cauty and Pierre-Yves Le Bail. AMBISEXUALITY IN A SOUTH AMERICAN CICHLID: *SATANOPERCA* AFF. *LEUCOSTICTA*. *Aquat. Living Resour.* 2(3):185-187. 1989. In English with French summ. FR 35(1)
[INRA, Lab. Physiol. Poissons, Campus Beaulieu, 35042 Rennes Cedex, France]

90-000185 Meyer, Axel. PLASTICITY IN MORPHOLOGY AND PERFORMANCE IN THE TROPHICALLY POLYMORPHIC CICHLID FISH, *CICHLASOMA CITRINELLUM*. *Ph.D. dissertation, Univ. Calif. (Berkeley)* 229p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(4):1283-1284. 1989. Order No. DA8916795. FR 35(1)

90-000186 Munk, Ole. DUPLEX RETINA IN THE MESOPELAGIC DEEP-SEA TELEOST *LESTIDIOPS AFFINIS* (EGE, 1930). *Acta Zool. (Stockh.)* 70(3):143-149. 1989. FR 35(1)
[Inst. Cell Biol. & Anat., Universitetsparken 15, DK-2100 Copenhagen 0, Denmark]

90-000187 Myoung, Jung-Goo; Jong-Man Kim and Yong Uk Kim. [EGG DEVELOPMENT AND MORPHOLOGY OF SAND FISH, *ARCTOSCOPUS JAPONICUS* (STEINDACHNER) LARVAE AND JUVENILES REARED IN THE LABORATRY.] *Bull. Korean Fish. Soc.* 22(3):129-137. 1989. In Korean with English summ. FR 35(1)
[Korean Ocean Res. & Dev. Inst., KAIST, Ansan, Kyonggi-do 425-600, South Korea]

90-000188 Nakashima, S. and T. Iwamatsu. ULTRASTRUCTURAL CHANGES IN MICROPYLAR CELLS AND FORMATION OF THE MICROCPYLE DURING OOGENESIS IN THE MEDAKA *ORYZIAS LATIPES*. *J. Morphol.* 202(3):339-349. 1989. FR 35(1)
[Dep. Biol., Aichi Univ. Educ., Igaya-cho, Kariya-shi, Aichi 448, Japan]

90-000189 Northcote, T. G. MERISTIC VARIATION IN THE NEW ZEALAND SMELT, *RETROPINNA RETROPINNA* (RICHARDSON): NEW QUESTIONS FOR AN OLD PROBLEM. *Verh. Int. Ver. Limnol.* 23(3):1797-1804. 1988. FR 35(1)
[Dep. Zool., Univ. British Columbia, Vancouver, BC, Canada V6T 2A9]

90-000190 Northcutt, R. Glenn. BRAIN VARIATION AND PHYLOGENETIC TRENDS IN ELASMOBRANCH FISHES. *J. Exp. Zool. Suppl.* (2):83-100. 1989. FR 35(1)
[Neurobiol. Unit, Scripps Inst. Oceanogr. & Dep. Neurosci., Univ. Calif., San Diego, La Jolla 92093-0201]

90-000191 Notarbartolo-di-Sciara, Giuseppe and Fabrizio Serena. TERM EMBRYO OF *MOBULA MOBULAR* (BONNATERRE, 1788) FROM THE NORTHERN TYRRHENIAN SEA. *Atti Soc. Ital. Sci. Nat. Mus. Civ. Stor. Nat. Milano*

MORPHOLOGY (CONTINUED)

90-000191 CONTINUED 129(4):396-400. 1988. In English with Italian summ. FR 35(1)
[Collab. Mus. Civico Storia Nat., Corso Venezia 55, 20121 Milan, Italy]

90-000192 Oguri, Mikio. DISTRIBUTION OF RENAL JUXTAGLOMERULAR CELLS IN THE SHORTNOSED SEA HORSE *HIPPOCAMPUS BREVIROSTRIS*. *Nippon Suisan Gakkaishi* 55(8):1379-1381. 1989. In English with Japanese summ. FR 35(1)
[Lab. Fish Biol., Fac. Agric., Nagoya Univ., Nagoya 464, Japan]

90-000193 Pankhurst, Neville W. THE RELATIONSHIP OF OCULAR MORPHOLOGY TO FEEDING MODES AND ACTIVITY PERIODS IN SHALLOW MARINE TELEOSTS FROM NEW ZEALAND. *Environ. Biol. Fishes* 26(3):201-211. 1989. FR 35(1)
[Leigh Mar. Lab., Univ. Auckland, Private Bag, Auckland, New Zealand] Data for 31 species.

90-000194 Pauly, D. FOOD CONSUMPTION BY TROPICAL AND TEMPERATE FISH POPULATIONS: SOME GENERALIZATIONS. *J. Fish Biol.* 35(Suppl. A):11-20. 1989. FR 35(1)
[Int. Cent. Living Aquat. Resour. Manage. (ICLARM), MC P.O. Box 1501, Makati, Metro Manila, Philippines]

90-000195 Ralston, Stephen. LENGTH-WEIGHT REGRESSIONS AND CONDITION INDICES OF LUTJANIDS AND OTHER DEEP SLOPE FISHES FROM THE MARIANA ARCHIPELAGO. *Micronesica* 21(1-2):189-197. 1988. FR 35(1)
[Southwest Fish. Cent., Honolulu Lab., NMFS, NOAA, Honolulu, HI 96822] *Pristipomoides* spp.

90-000196 Raschi, William and Lisa A. Mackanos. THE STRUCTURE OF THE AMPULLAE OF LORENZINI IN *DASYATIS GAROUAENSIS* AND ITS IMPLICATIONS ON THE EVOLUTION OF FRESHWATER ELECTRORECEPTIVE SYSTEMS. *J. Exp. Zool. Suppl.* (2):101-111. 1989. FR 35(1)
[Biol. Dep., Bucknell Univ., Lewisburg, PA 17837]

90-000197 Riley, S. C.; G. Power and P. E. Ihssen. MERISTIC AND MORPHOMETRIC VARIATION IN PARR OF OUANANICHE AND ANADROMOUS ATLANTIC SALMON FROM RIVERS ALONG THE NORTH SHORE OF THE GULF OF ST. LAWRENCE. *Trans. Am. Fish. Soc.* 118(5):515-522. 1989. FR 35(1)
[Dep. Fish. & Wildl. Biol., Colo. State Univ., Fort Collins 80523] *Salmo salar.*

90-000198 Rodriguez, Juan Romero. [SOMATIC GROWTH OF THE CHUB *LEUCISCUS CEPHALUS PYRENAICUS* GUNTHER 1868 (PISCES, CYPRINIDAE) IN GUADALHORCE RIVER (MALAGA, S. SPAIN).] *Arq. Mus. Bocage Nova Ser.* 1(20):311-323. 1989. In Spanish with English summ. FR 35(1)
[c/Palo Mayor, Edif. Andalucia 4, 5° B, Malaga 29010, Spain]

90-000199 Sanford, Christopher P. and George V. Lauder. FUNCTIONAL MORPHOLOGY OF THE "TOUNGUE-BITE" IN THE OSTEOGLOSSOMORPH FISH *NOTOPTERUS*. *J. Morphol.* 202(3):379-408. 1989. FR 35(1)
[Dep. Ecol. & Evol. Biol., Univ. Calif., Irvine 92717]

90-000200 Santos, Ricardo Serrao. [SOME ASPECTS OF THE EMBRYOLOGICAL, LARVAL AND JUVENILE DEVELOPMENT OF *PARABLENNIUS SANGUINOLENTUS* (PALLAS) (PISCES: BLENNIIDAE) FROM THE AZORES.] *Arq. Mus. Bocage Nova Ser.*

MORPHOLOGY (CONTINUED)

90-000200 CONTINUED 1(19):293-310. 1989. In Portuguese with English summ. FR 35(1)
[Dep. Oceanogr. & Pescas, Univ. Acores, 9900 Horta, Acores, Portugal]

90-000201 Schultze, Hans-Peter and Gloria Arratia. THE COMPOSITION OF THE CAUDAL SKELETON OF TELEOSTS (ACTINOPTERYGIL: OSTEICHTHYES). *Zool. J. Linn. Soc.* 97(3):189-231. 1989. FR 35(1)
[Mus. Nat. Hist. & Dep. Syst. & Ecol., Univ. Kans., Lawrence 66045-2245]

90-000202 Seiwald, M. and R. A. Patzner. HISTOLOGICAL, FINE-STRUCTURAL AND HISTOCHEMICAL DIFFERENCES IN THE TESTICULAR GLANDS OF GOBIID AND BLENNIID FISHES. *J. Fish Biol.* 35(5):631-640. 1989. FR 35(1)
[Patzner: Mar. Biol. Lab. 'Sorgenti di Aurisina', Strada Costiera 336, Trieste, Italy] *Blennius pavo* and *Gobius niger.*

90-000203 Sire, Jean-Yves. SCALES IN YOUNG *POLYPTERUS SENEGALUS* ARE ELASMOID: NEW PHYLOGENETIC IMPLICATIONS. *Am. J. Anat.* 186(3):315-323. 1989. FR 35(1)
[Equipe "Formations Squelettiques", UA CNRS 041137, Lab. Anat. Comp., Univ. Paris 7, 75251 Paris Cedex 05, France]

90-000204 Templeman, Wilfred. VARIATION OF VERTEBRAL NUMBERS WITH FISH LENGTH IN ATLANTIC COD (*GADUS MORHUA*) OF THE EASTERN NEWFOUNDLAND AREA, 1947-71. *J. Northwest Atl. Fish. Sci.* 9(1):45-52. 1989. FR 35(1)
[Dep. Fish. & Oceans, Sci. Branch, Northwest Atl. Fish. Cent., P.O. Box 5667, St. John's, NF, Canada A1C 5X1]

90-000205 Timmermans, L. P. M. and N. Taverne. SEGREGATION OF PRIMORDIAL GERM CELLS: THEIR NUMBERS AND FATE DURING EARLY DEVELOPMENT OF *BARBUS CONCHONIUS* (CYPRINIDAE, TELEOSTEI) AS INDICATED BY ^{3}H-THYMIDINE INCORPORATION. *J. Morphol.* 202(2):225-227. 1989. FR 35(1)
[Dep. Exp. Anim. Morphol. & Cell Biol., Marijkeweg 40, 6709 PG Wageningen, Netherlands]

90-000206 Tota, B. MYOARCHITECTURE AND VASCULARIZATION OF THE ELASMOBRANCH HEART VENTRICLE. *J. Exp. Zool. Suppl.* (2):122-135. 1989. FR 35(1)
[Stn. Zool., Villa Comunale, I-80121 Naples, Italy]

90-000207 Tyler, James C.; G. David Johnson; Izumi Nakamura and Bruce B. Collette. MORPHOLOGY OF *LUVARUS IMPERIALIS* (LUVARIDAE), WITH A PHYLOGENETIC ANALYSIS OF THE ACANTHUROIDEI (PISCES). *Smithson. Contrib. Zool.* No. 485. 78p. 1989. FR 35(1)
[Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC 20560]

90-000208 van der Horst, Gerhard and Theresa Lasiak. CHARACTERISTICS OF MATURE OOCYTES FROM FOUR SPECIES OF MARINE TELEOSTS. *S. Afr. J. Zool.* 24(1):74-76. 1989. In English with Afrikaans summ. FR 35(1)
[Lasiak: Dep. Zool., Univ. Transkei, Private Bag X1, Unitra, Umtata 5100, Transkei, South Africa] *Liza richardsoni, L. dumerilii, Monodactylus falciformis,* and *Pomadasys olivaceum.*

90-000209 Webb, Jacqueline F. NEUROMAST MORPHOLOGY AND LATERAL LINE TRUNK CANAL ONTOGENY IN TWO SPECIES OF CICHLIDS: AN SEM STUDY. *J. Morphol.* 202(1):53-68. 1989. FR 35(1)

MORPHOLOGY (CONTINUED)

90-000209 CONTINUED
[Dep. Anat., State Coll. Vet. Med., Cornell Univ., Ithaca, NY 14853] *Tilapia aurea* and *Cichlasoma nigrofasciatum.*

90-000210 Westneat, Mark W. and Peter C. Wainwright. FEEDING MECHANISM OF *EPIBULUS INSIDIATOR* (LABRIDAE; TELEOSTEI): EVOLUTION OF A NOVEL FUNCTIONAL SYSTEM. *J. Morphol.* 202(2):129-150. 1989. FR 35(1)
[Dep. Zool., Duke Univ., Durham, NC 27706]

90-000211 Whitehead, P. J. P. and J. H. S. Blaxter. SWIMBLADDER FORM IN CLUPEOID FISHES. *Zool. J. Linn. Soc.* 97(4):299-372. 1989. FR 35(1)
[Blaxter: Dunstaffnage Mar. Lab., P.O. Box 3, Oban, Argyll PA34 4AD, Scotland]

90-000212 Wright, Glenda M. ULTRASTRUCTURE OF THE ADENOHYPOPHYSIS IN THE ANADROMOUS SEA LAMPREY, *PETROMYZON MARINUS*, DURING METAMORPHOSIS. *J. Morphol.* 202(2):205-223. 1989. FR 35(1)
[Dep. Anat. & Physiol., Atlantic Vet. Coll., Univ. Prince Edward Island, Charlottetown, PI, Canada C1A 4P3]

90-000213 Zummo, Giovanni and Felicia Farina. ULTRASTRUCTURE OF THE CONUS ARTERIOSUS OF *SCYLIORHINUS STELLARIS*. *J. Exp. Zool. Suppl.* (2):158-164. 1989. FR 35(1)
[Dip. Discipline Chirurgiche & Anat., Univ. Palermo, 90127 Palermo, Italy]

PHYSIOLOGY

90-000214 Abad, M. E.; M. T. Lozano; J. J. Taverne-Thiele and J. H. W. M. Rombout. IDENTIFICATION OF TWO SOMATOSTATIN-IMMUNOREACTIVE CELL TYPES IN THE PRINCIPAL ISLET OF *SPARUS AURATUS* L. (TELEOSTEI) BY IMMUNOGOLD STAINING. *Gen. Comp. Endocrinol.* 77(1):1-8. 1990. FR 35(1)
[Dep. Cell Biol., Univ. Murcia, 30071 Murcia, Spain]

90-000215 Abel, Daniel C. HEART FUNCTION IN SHARKS AND RAYS. *Va. J. Sci.* 40(2):54. 1989. Abstract only. FR 35(1)
[Dep. Biol. Sci., Mary Washington Coll., Fredericksburg, VA 22401] *Heterodontus francisci.*

90-000216 Adams, Colin E. and John E. Thorpe. PHOTOPERIOD AND TEMPERATURE EFFECTS ON EARLY DEVELOPMENT AND REPRODUCTIVE INVESTMENT IN ATLANTIC SALMON (*SALMO SALAR* L.). *Aquaculture* 79(1-4):403-409. 1989. FR 35(1)
[Thorpe: Freshwater Fish. Lab., Pitlochry PH16 5LB, Scotland]

90-000217 Al-Ameeri, Abdul-Aziz. PROTEIN INTAKE, AMMONIA EXCRETION AND GROWTH OF *OREOCHROMIS SPILURUS* IN SEA WATER. *Ph.D. dissertation, Univ. Stirling (United Kingdom)* 261p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1731. 1989. Order No. BRD-86140. FR 35(1)

90-000218 Almatar, S. M. ENERGY CONTENT OF CLYDE SPRING-SPAWNING HERRING, *CLUPEA HARENGUS* L. *J. Fish Biol.* 35(Suppl. A):347-349. 1989. FR 35(1)
[Kuwait Inst. Sci. Res., Maricult. & Fish. Dep., Food Resour. Div., P.O. Box 1638 Salmiyah, 22017-Salmiyah, Kuwait]

PHYSIOLOGY (CONTINUED)

90-000219 Andersson, Tommy and Eva Nilsson. CHARACTERIZATION OF CYTOCHROME P-450-DEPENDENT ACTIVITIES IN HAGFISH, DOGFISH, PERCH AND SPECTACLE CAIMAN. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(1):99-105. 1989. FR 35(1)
[Dep. Zoophysiol., Univ. Goteborg, Box 25059, 400 31 Goteborg, Sweden] *Myxine glutinosa, Perca fluviatilis,* and *Squalus acanthias.*

90-000220 Archer, Simon Nicholas. A MICROSPECTROPHOTOMETRIC STUDY OF VISUAL PIGMENT POLYMORPHISM IN THE GUPPY, *POECILIA RETICULATA. Ph.D. dissertation, Univ. Bristol (United Kingdom)* 242p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1805. 1989. Order No. BRDX86108. FR 35(1)
Pollachius pollachius, Pleuronectes platessa, Aequidens pulcher, Pomatoschistus microps, and *Gobius niger.*

90-000221 Arnold-Reed, D. E. and R. J. Balment. STEROIDOGENIC ROLE OF THE CAUDAL NEUROSECRETORY SYSTEM IN THE FLOUNDER, *PLATICHTHYS FLESUS. Gen. Comp. Endocrinol.* 76(2):267-273. 1989. FR 35(1)
[Dep. Physiol. Sci., Univ. Manchester, Manchester M13 9PT, England]

90-000222 Arnold, Andreas. [OBSERVATIONS ON THE REPRODUCTION BIOLOGY OF THE WHITE ASPE, *LEUCASPIUS DELINEATUS DELINEATUS* (HECKEL) (OSTEICHTHYES: CYPRINIDAE).] *Zool. Abh. (Dres.)* 44(2):89-99. 1989. In German with English summ. FR 35(1)
[Nordstr. 39/551, Leipzig DDR-7010, East Germany]

90-000223 Asahina, Kiyoshi; Akihito Urabe; Takayuki Sakai; Hitomi Hirose and Takashi Hibiya. EFFECTS OF VARIOUS ANDROGENS ON THE FORMATION OF PAPILLARY PROCESSES ON THE ANAL FIN RAYS IN THE FEMALE MEDAKA *ORYZIAS LATIPES. Nippon Suisan Gakkaishi* 55(10):1871. 1989. In English. FR 35(1)
[Coll. Agric. & Vet. Med., Nihon Univ., Setagaya-ku, Tokyo 154, Japan]

90-000224 Atnashev, V. B. [THERMAL RESISTANCE OF FISH UNDER DIFFERENT TEMPERATURE CONDITIONS OF THEIR HABITAT.] *Gidrobiol. Zh.* 25(2):54-58. 1989. In Russian with English summ. FR 35(1)

90-000225 Bailey, John R. and William R. Driedzic. EFFECTS OF ACUTE TEMPERATURE CHANGE ON CARDIAC PERFORMANCE AND OXYGEN CONSUMPTION OF A MARINE FISH, THE SEA RAVEN (*HEMITRIPTERUS AMERICANUS*). *Physiol. Zool.* 62(5):1089-1101. 1989. FR 35(1)
[Dep. Biol., Mount Allison Univ., Sackville, NB, Canada E0A 3C0]

90-000226 Bailhache, T.; G. Salbert; J. C. Guillet; C. Saligaut; B. Breton and P. Jego. A NEW PERFUSION METHOD ADAPTED TO RAINBOW TROUT (*SALMO GAIRDNERI*) BRAIN PITUITARY PREPARATION FOR SIMULTANEOUS ELECTROPHYSIOLOGICAL RECORDING AND HORMONE SECRETION DETERMINATION. *Comp. Biochem. Physiol. A Comp. Physiol.* 94(2):305-313. 1989. FR 35(1)
[Lab. Physiol. Regulations, U.A. CNRS 256, Univ. Rennes I, 35042 Rennes Cedex, France]

90-000227 Balakhnin, I. A. [PROTECTINS OF INVERTEBRATES AND FISH (A REVIEW).] *Gidrobiol. Zh.* 25(3):49-55. 1989. In Russian with English summ. FR 35(1)

90-000228 Basaglia, Fulvia. STUDY OF THE SOLUBLE LENS PROTEINS FROM FIFTEEN SPARIDAE SPECIES. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(4):625-629. 1989. FR 35(1)

PHYSIOLOGY (CONTINUED)

90-000228 CONTINUED
[Inst. Comp. Anat., Univ. Ferrara, Via L. Borsari 46, 44100 Ferrara, Italy] *Dentex dentex, Sparus auratus, S. pagrus, Pagellus erythrinus, P. acarne, P. bogaraveo, Lithognathus mormyrus, Diplodus annularis, D. sargus, D. vulgaris, D. puntazzo, Boops boops, Sarpa salpa, Oplada melanura,* and *Spondyliosoma cantharus.*

90-000229 Battram, J. C.; F. B. Eddy; Y. J. Chang and Jenny Fidler. CHLORIDE TRANSPORT BY ISOLATED GILL CELLS OF THE FRESH WATER ADAPTED RAINBOW TROUT (*SALMO GAIRDNERI*). *Comp. Biochem. Physiol. A Comp. Physiol.* 94(3):439-445. 1989. FR 35(1)
[Dep. Biol. Sci., The Univ., Dundee DD1 4HN, Scotland]

90-000230 Beck, Jill Covington. SPERM SURFACE ANTIGENS REQUIRED FOR FERTILITY: IDENTIFYING THE LOCATION AND FUNCTION OF ANTIGENS ON SPERMATOZOA OF RAINBOW TROUT (*SALMO GAIRDNERI*) USING MONOCLONAL ANTIBODIES. *M.S. thesis, Univ. Idaho* 73p. 1988. FR 35(1)

90-000231 Bilyk, T. I. [THE EFFECT OF ECOLOGICAL FACTORS ON THE METABOLISM OF ADENINE NUCLEOTIDES IN THE FISH MUSCLES AND LIVER (A REVIEW).] *Gidrobiol. Zh.* 25(4):58-65. 1989. In Russian with English summ. FR 35(1)

90-000232 Bonnin, Jean-Pierre. [TESTOSTERONE SPECIFIC BINDING AND PROLACTIN IN THE *GOBIUS NIGER* L. SEMINAL VESICLE CULTURED CELLS.] *C.R. Acad. Sci. Ser. III Sci. Vie* 309(10):435-440. 1989. In French with English summ. FR 35(1)
[Lab. Biol. Mar., Univ. Bordeaux-I, Ave. Facultes, 33405 Talence Cedex, France]

90-000233 Boonyaratpalin, Mali and Nanthiya Unprasert. EFFECTS OF PIGMENTS FROM DIFFERENT SOURCES ON COLOUR CHANGES AND GROWTH OF RED *OREOCHROMIS NILOTICUS. Aquaculture* 79(1-4):375-380. 1989. FR 35(1)
[Natl. Inst. Coastal Aquacult., Amphur Muang, Songkhla 900 00, Thailand]

90-000234 Bres, O. and J. G. Eales. SATURABLE TRIIODOTHYRONINE-BINDING SITES IN THE PITUITARY NUCLEI OF SALMONID TELEOST FISH. *Gen. Comp. Endocrinol.* 77(1):23-28. 1990. FR 35(1)
[Dep. Physiol.-Anat., Univ. Calif., Berkeley 94720] *Salvelinus alpinus* and *Oncorhynchus mykiss.*

90-000235 Brighty, Geoffrey Christopher. STUDIES ON THE PHYSIOLOGY AND MANAGEMENT OF REPRODUCTION IN THE CHUB *LEUCISCUS CEPHALUS* (L.) AND THE DACE *LEUCISCUS LEUCISCUS* (L.). *Ph.D. dissertation, Univ. Nottingham (United Kingdom)* 258p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(4):1267. 1989. Order No. BRDX85870. FR 35(1)

90-000236 Brown, Larry R. TEMPERATURE PREFERENCES AND OXYGEN CONSUMPTION OF THREE SPECIES OF SCULPIN (*COTTUS*) FROM THE PIT RIVER DRAINAGE, CALIFORNIA. *Environ. Biol. Fishes* 26(3):223-236. 1989. FR 35(1)
[Dep. Wildl. & Fish. Biol., Univ. Calif., Davis 95616] *C. pitensis, C. asperrimus,* and *C. klamathensis macrops.*

90-000237 Brzuska, Elzbieta and Jerzy Adamek. INVESTIGATION ON THE REPRODUCTION OF THE HERBIVOROUS FISH *CTENOPHARYNGODON IDELLA, HYPOPHTHALMICHTHYS MOLITRIX,* AND *ARISTICHTHYS NOBILIS* UNDER CONTROLLED

PHYSIOLOGY (CONTINUED)

90-000237 CONTINUED CONDITIONS. *Acta Hydrobiol.* 29(4):497-508. 1987. In English with Polish summ. FR 35(1)
[Polish Acad. Sci., Inst. Freshwater Biol., ul. Slawkowska 17, 31-016 Krakow, Poland]

90-000238 Callard, Gloria; Paul Mak; Wilfrid DuBois and Maria Elena Cuevas. REGULATION OF SPERMATOGENESIS: THE SHARK TESTIS MODEL. *J. Exp. Zool. Suppl.* (2):23-34. 1989. FR 35(1)
[Dep. Biol., Boston Univ., Boston, MA 02215] *Squalus acanthias.*

90-000239 Callard, Ian P.; Lorrie L. Klosterman; Lisa A. Sorbera; Lisa A. Fileti and Joseph C. Reese. ENDOCRINE REGULATION OF REPRODUCTION IN ELASMOBRANCHS: ARCHETYPE FOR TERRESTRIAL VERTEBRATES. *J. Exp. Zool. Suppl.* (2):12-22. 1989. FR 35(1)
[Mount Desert Island Biol. Lab., Salsbury Cove, ME 04672] *Raja erinacea, R. naevus, Squalus acanthias,* and *Odontaspis taurus*

90-000240 Carey, Cynthia and Jeffrey R. Hazel. DIURNAL VARIATION IN MEMBRANE LIPID COMPOSITION OF SONORAN DESERT TELEOSTS. *J. Exp. Biol.* 147:375-391. 1989. FR 35(1)
[DEPOB, Univ. Colo., Boulder 80309] *Agosia chrysogaster* and *Notropis lutrensis.*

90-000241 Carpene, E.; G. Fedrizzi and G. Giani. [CONCENTRATIONS OF Cd, Zn AND Cu IN LIVER AND BILE OF *CARASSIUS AURATUS.*] *Arch. Vet. Ital.* 40(3):197-202. 1989. In Italian with English summ. FR 35(1)
[Dip. Biochim., Sezione Biochim. Vet., Univ. Bologna, via Belmeloro 8/2, Bologna, Italy]

90-000242 Carragher, J. F.; J. P. Sumpter; T. G. Pottinger and A. D. Pickering. THE DELETERIOUS EFFECTS OF CORTISOL IMPLANTATION ON REPRODUCTIVE FUNCTION IN TWO SPECIES OF TROUT, *SALMO TRUTTA* L. AND *SALMO GAIRDNERI* RICHARDSON. *Gen. Comp. Endocrinol.* 76(2):310-321. 1989. FR 35(1)
[Dep. Biol. & Biochem., Brunel Univ., Uxbridge, Middlesex UB8 3PH, England]

90-000243 Carrillo, M.; N. Bromage; S. Zanuy; R. Serrano and F. Prat. THE EFFECT OF MODIFICATIONS IN PHOTOPERIOD ON SPAWNING TIME, OVARIAN DEVELOPMENT AND EGG QUALITY IN THE SEA BASS (*DICENTRARCHUS LABRAX* L.). *Aquaculture* 81(3/4):351-365. 1989. FR 35(1)
[Inst. Acuicult. Torre de la Sal, C.S.I.C., Ribera de Cabanes, 12545 Castellon, Spain]

90-000244 Carvajal, Nelson; Eduardo Kessi and Darwin Jerez. STUDIES ON THE CONTROL OF ARGININE HYDROLYSIS IN THE LIVER OF *MERLUCCIUS GAYI. Comp. Biochem. Physiol. B Comp. Biochem.* 94(1):195-199. 1989. FR 35(1)
[Dep. Biol. Mol., Fac. Cienc. Biol. & Recursos Nat., Univ. Concepcion, Casilla 2407, Concepcion, Chile]

90-000245 Christiansen, Jorgen Schou; Einar Ringo and Malcolm Jobling. EFFECTS OF SUSTAINED EXERCISE ON GROWTH AND BODY COMPOSITION OF FIRST-FEEDING FRY OF ARCTIC CHARR, *SALVELINUS ALPINUS* (L.). *Aquaculture* 79(1-4):329-335. 1989. FR 35(1)
[Norwegian Coll. Fish. Sci., Univ. Tromso, P.O. Box 3083-Guleg, N-9001 Tromso, Norway]

PHYSIOLOGY (CONTINUED)

90-000246 Cimini, V.; S. Van Noorden and V. Nardini. PEPTIDES OF THE GASTROINTESTINAL TRACT OF THE DOGFISH (*SCYLIORHINUS STELLARIS*). *J. Exp. Zool. Suppl.* (2):146-157. 1989. FR 35(1)
[Ist. Anat. Umana Normale, II Fac. Med. & Chirurgia, Univ. degli Studi Napoli, Via S. Pansini 5, 80131 Naples, Italy]

90-000247 Conlon, J. Michael and Sture Falkmer. NEUROHORMONAL PEPTIDES IN THE GUT OF THE ATLANTIC HAGFISH (*MYXINE GLUTINOSA*) DETECTED USING ANTISERA RAISED AGAINST MAMMALIAN REGULATORY PEPTIDES. *Gen. Comp. Endocrinol.* 76(2):292-300. 1989. FR 35(1)
[Clin. Res. Group Gastrointestinal Endocrinol., Max-Planck-Gesellschaft, Univ. Gottingen, Gosslerstr. 10d, D-3400 Gottingen, West Germany]

90-000248 Cui, Y. and R. J. Wootton. THE METABOLIC RATE OF THE MINNOW, *PHOXINUS PHOXINUS* (L.) (PISCES: CYPRINIDAE), IN RELATION TO RATION, BODY SIZE AND TEMPERATURE. *Funct. Ecol.* 2(2):157-161. 1988. FR 35(1)
[Dep. Zool., Univ. Coll. Wales, Aberystwyth, Dyfed, Wales]

90-000249 Dabrowski, K. and G. Kock. ABSORPTION OF ASCORBIC ACID AND ASCORBIC SULFATE AND THEIR INTERACTION WITH MINERALS IN THE DIGESTIVE TRACT OF RAINBOW TROUT (*ONCORHYNCHUS MYKISS*). *Can. J. Fish. Aquat. Sci.* 46(11):1952-1957. 1989. In English with French summ. FR 35(1)
[School Nat. Resour., Ohio State Univ., 2021 Coffey Rd., Columbus 43210]

90-000250 Davison, William. TRAINING AND ITS EFFECTS ON TELEOST FISH. *Comp. Biochem. Physiol. A Comp. Physiol.* 94(1):1-10. 1989. FR 35(1)
[Univ. Canterbury, Private Bag, Christchurch 1, New Zealand] *Galaxias maculatus, Fundulus heteroclitus, Salmo trutta, Oncorhynchus kisutch, O. mykiss,* and *Salvelinus fontinalis.*

90-000251 Demski, Leo S. PATHWAYS FOR GnRH CONTROL OF ELASMOBRANCH REPRODUCTIVE PHYSIOLOGY AND BEHAVIOR. *J. Exp. Zool. Suppl.* (2):4-11. 1989. FR 35(1)
[School Biol. Sci., Univ. Ky., Lexington 40506] *Scyliorhinus caniculus* and *Urolophus halleri.*

90-000252 Eid, A. E. and A. J. Matty. A SIMPLE *IN VITRO* METHOD FOR MEASURING PROTEIN DIGESTIBILITY. *Aquaculture* 79(1-4):111-119. 1989. FR 35(1)
[Dep. Anim. Production, Suez Canal Univ., Ismailia, Egypt] *Cyprinus carpio.*

90-000253 Eyo, A. A. STUDIES ON BIOCHEMICAL COMPOSITION OF CLUPEIDS, *PELLONULA AFZELIUSI* (JOHNELS, 1954) AND *SIERRATHRISSA LEONENSIS* (THYS VARDEN ANDENAERDE, 1959). *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 145-148. 1989. FR 35(1)

90-000254 Faisal, M.; Iman I. Ahmed; Gabriele Peters and E. L. Cooper. NATURAL CYTOTOXICITY OF TILAPIA LEUCOCYTES. *Dis. Aquat. Org.* 7(1):17-22. 1989. FR 35(1)
[Inst. Mar. Sci., School Mar. Sci., Coll. William & Mary, Gloucester Point, VA 23062] *Tilapia mossambica* and *T. honorum.*

PHYSIOLOGY (CONTINUED)

90-000255 Falcon, J. and J.-P. Collin. PHOTORECEPTORS IN THE PINEAL OF LOWER VERTEBRATES: FUNCTIONAL ASPECTS. *Experientia (Basel)* 45(10):909-913. 1989. FR 35(1)
[Lab. Cell Biol., Univ. Poitiers, URA CNRS 290, 40 Ave. Recteur Pineau, F-86022 Poitiers Cedex, France]

90-000256 Fang Yongqiang and Lee Cheng-sheng. [THE PRELIMINARY STUDY ON THE MECHANISM OF THE ACTION OF 17α - METHYLTESTOSTERONE STIMULATORY SPERMATOGENESIS IN THE GREY MULLET (*MUGIL CEPHALUS* L.).] *Oceanol. Limnol. Sin.* 20(1):10-14. 1989. In Chinese with English summ. FR 35(1)
[Third Inst. Oceanogr., SOA, Xiamen, China]

90-000257 Fargher, Robert Charles. BIOCHEMICAL AND PHYSIOLOGICAL STUDIES WITH SALMON PROLACTIN. *Ph.D. dissertation, Simon Fraser Univ. (Canada)* 1988. From Diss. Abstr. Int. B Sci. Eng. 50(4):1281-1282. 1989. FR 35(1)
Oncorhynchus keta and *O. kisutch*.

90-000258 Fasano, Silvia; Riccardo Pierantoni and Giovanni Chieffi. REPRODUCTIVE BIOLOGY OF ELASMOBRANCHS WITH EMPHASIS ON ENDOCRINES. *J. Exp. Zool. Suppl.* (2):53-61. 1989. FR 35(1)
[Ist. Biol., I Fac. Med. & Chirurgia, Via Costantinopoli 16, 80138 Naples, Italy]

90-000259 Feller, G. and Ch. Gerday. TROPONIN C OF THE ANTARCTIC ICEFISH (*CHAMPSOCEPHALUS GUNNARI*) WHITE MUSCLE. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(4):769-773. 1989. FR 35(1)
[Lab. Biochim. Musculaire, Univ. Liege, Inst. Chim. (B6), Sart Tilman, B-4000 Liege, Belgium]

90-000260 Ferracin, Alessandro; Margherita Annicchiarico, Annamaria Coscarella, Angela Teichner and Massimo Dell'Agata. THERMAL BEHAVIOUR OF A_4 LACTATE DEHYDROGENASE PURIFIED FROM THE HETEROTHERMIC AND SYMPATRIC VERTEBRATE SPECIES BROOK LAMPREY (*LAMPETRA PLANERI*), TENCH (*TENCA TENCA*), SMOOTH (*TRITURUS VULGARIS*) AND ALPINE NEWT (*TRITURUS ALPESTRIS*). *Comp. Biochem. Physiol. B Comp. Biochem.* 94(3):435-443. 1989. FR 35(1)
[Dip. Biopatol. Umana, Sezione Biol. Cellulare, Univ. Roma "La Sapienza", Policlinico Umberto I, 00161 Rome, Italy]

90-000261 Finstad, Bengt; Kjell J. Nilssen and Arne M. Arnesen. SEASONAL CHANGES IN SEA-WATER TOLERANCE OF ARCTIC CHARR (*SALVELINUS ALPINUS*). *J. Comp. Physiol. B Biochem. Syst. Environ. Physiol.* 159(4):371-378. 1989. FR 35(1)
[Dep. Zool., Univ. Trondheim, AVH, N-7055 Dragvoll, Norway]

90-000262 Fraser, Angus J. TRIACYLGLYCEROL CONTENT AS A CONDITION INDEX FOR FISH, BIVALVE, AND CRUSTACEAN LARVAE. *Can. J. Fish. Aquat. Sci.* 46(11):1868-1873. 1989. In English with French summ. FR 35(1)
[Mar. Fish Div., Dep. Fish. & Oceans, Bedford Inst. Oceanogr., P.O. Box 1006, Dartmouth, NS, Canada B2Y 4A2]

90-000263 Gelman, A.; S. Mokady and U. Cogan. THE THERMAL PROPERTIES OF INTESTINAL ALKALINE PHOSPHATASE OF THREE KINDS OF DEEP-WATER FISH. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(1):113-116. 1989. FR 35(1)

PHYSIOLOGY (CONTINUED)

90-000263 CONTINUED
[Fish. Products Lab., Kimron Vet. Inst., P.O. Box 699, Haifa 31000, Israel] *Aphanopus carbo, Etmopterus princeps,* and *Epigonus telescopus.*

90-000264 Gerasimchuk, V. V. and V. I. Lanin. SPATIAL GROUPS OF ANTARCTIC SIDESTRIPE, *PLEURAGRAMMA ANTARCTICUM. J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):8-14. 1988. FR 35(1)
[Azov-Black Sea Sci-Res. Inst. Mar. Fish. & Oceanogr., AzCherNIRO, Kerch, USSR]

90-000265 Gill, T. A. and J. T. Conway. THERMAL AGGREGATION OF COD *(GADUS MORHUA)* MUSCLE PROTEINS USING 1-ETHYL-3-(3-DIMETHYLAMINOPROPYL) CARBODIIMIDE AS A ZERO LENGTH CROSS-LINKER. *Agric. Biol. Chem.* 53(10):2553-2562. 1989. FR 35(1)
[Canadian Inst. Fish. Technol., Tech. Univ. Nova Scotia, P.O. Box 1000, Halifax, NS, Canada B3J 2X4]

90-000266 Gjellesvik, Dag Rune; Arnt Johan Raae and Bernt Th. Walther. PARTIAL PURIFICATION AND CHARACTERIZATION OF A TRIGLYCERIDE LIPASE FROM COD *(GADUS MORHUA). Aquaculture* 79(1-4):177-184. 1989. FR 35(1)
[Dep. Biochem., Univ. Bergen, N-5009 Arstad, Norway]

90-000267 Glass, H. J.; N. L. MacDonald; R. M. Moran and J. R. Stark. DIGESTION OF PROTEIN IN DIFFERENT MARINE SPECIES. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(3):607-611. 1989. FR 35(1)
[Dep. Biol. Sci., Heriot-Watt Univ., Riccarton, Edinburgh, Scotland] *Hippoglossus hippoglossus, Solea solea,* and *Scophthalmus maximus.*

90-000268 Gnyubkin, V. F. [RESPONSES OF THE PIGMENTED CORNEAS OF THE WHITE-SPOTTED GREENLING *HEXAGRAMMOS STELLERI* TO CHANGES IN ILLUMINATION.] *Mar. Biol. (Vladivostok)* 1989(1):25-32. 1989. In Russian with English summ. FR 35(1)
[Lab. Comp. Physiol., Inst. Mar. Biol., Far East Branch, Acad. Sci. USSR, Vladivostok 690022, USSR]

90-000269 Goldstein, Leon. VOLUME REGULATION IN THE ERYTHROCYTE OF THE LITTLE SKATE, *RAJA ERINACEA. J. Exp. Zool. Suppl.* (2):136-142. 1989. FR 35(1)
[Div. Biol. & Med., Brown Univ., Providence, RI 02912]

90-000270 Gonzalez, Richard J. and William A. Dunson. MECHANISMS FOR TOLERANCE OF SODIUM LOSS DURING EXPOSURE TO LOW pH OF THE ACID-TOLERANT SUNFISH *ENNEACANTHUS OBESUS. Physiol. Zool.* 62(6):1219-1231. 1989. FR 35(1)
[Dep. Biol., Pa. State Univ., 208 Mueller Lab., University Park 16802]

90-000271 Gonzalez, Richard J. and William A. Dunson. DIFFERENCES IN LOW pH TOLERANCE AMONG CLOSELY RELATED SUNFISH OF THE GENUS *ENNEACANTHUS. Environ. Biol. Fishes* 26(4):303-310. 1989. FR 35(1)
[Pa. State Univ., Dep. Biol., 208 Mueller Lab., University Park 16802] *E. obesus, E. chaetodon,* and *E. gloriosus.*

90-000272 Goolish, Edward M. THE SCALING OF AEROBIC AND ANAEROBIC MUSCLE POWER IN RAINBOW TROUT (*SALMO GAIRDNERI*). *J. Exp. Biol.* 147:493-505. 1989. FR 35(1)
[Univ. Mich., School Nat. Resour., Ann Arbor 48109]

PHYSIOLOGY (CONTINUED)

90-000273 Gosh, R. I. [ENERGY METABOLISM OF FISH SPERMATOZOIDS (A REVIEW).] *Gidrobiol. Zh.* 25(1):61-71. 1989. In Russian with English summ. FR 35(1)

90-000274 Graham, Mark S. and George Iwama. THE PHYSIOLOGIC EFFECTS OF THE INJECTABLE ANESTHETIC KETAMINE HYDROCHLORIDE ON TELEOST FISH. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 362-368. 1989. FR 35(1)
[Vancouver Public Aquarium, Box 3232, Vancouver, BC, Canada V6B 3X8]

90-000275 Guillou, A.; G. Choubert; T. Storebakken; J. de la Noue and S. Kaushik. BIOCONVERSION PATHWAY OF ASTAXANTHIN INTO RETINOL$_2$ IN MATURE RAINBOW TROUT (*SALMO GAIRDNERI* RICH.). *Comp. Biochem. Physiol. Comp. Biochem.* 94(3):481-485. 1989. FR 35(1)
[de la Noue: Nutr. Res. Cent. & Dep. Biol., Laval Univ., Sainte-Foy, PQ, Canada G1K 7P4]

90-000276 Guziur, Janusz and Franciszek Markiewicz. THE EFFECT OF INTENSIVE MINERAL FERTILIZATION OF PONDS ON THE STATE OF HEALTH OF CARP (*CYPRINUS CARPIO* L.). *Acta Hydrobiol.* 29(4):509-521. 1987. In English with Polish summ. FR 35(1)
[Acad. Agric. & Technol., Dep. Fish., 10-957 Olsztyn-Kortowo 37, Poland]

90-000277 Haaland, Herborg and Leif R. Njaa. TOTAL VOLATILE NITROGEN - A QUALITY CRITERION FOR FISH SILAGE? *Aquaculture* 79(1-4):311-316. 1989. FR 35(1)
[Inst. Nutr., Dir. Fish., P.O. Box 1900, Nordnes, N-5024 Bergen, Norway]

90-000278 Hamano, Kaoru; Akio Sato and Tadashi Yanagisawa. THE DISTRIBUTION OF THYROTROPIN-RELEASING HORMONE IN CARP BRAINS. *Nippon Suisan Gakkaishi* 55(10):1741-1745. 1989. In English. FR 35(1)
[Dep. Agric. Chem., Utsunomiya Univ., Utsunomiya 321, Japan] *Cyprinus carpio.*

90-000279 Hamlett, William C. and Bruno Tota, editors. EVOLUTIONARY AND CONTEMPORARY BIOLOGY OF ELASMOBRANCHS. *J. Exp. Zool. Suppl.* (2):198p. 1989. FR 35(1)
[Dep. Anat., Med. Coll. Ohio, Toledo 43699]

90-000280 Hansen, P. E.; E. Lied and T. Borresen. ESTIMATION OF PROTEIN SYNTHESIS IN FISH LARVAE USING AN *IN VITRO* POLYRIBOSOME ASSAY. *Aquaculture* 79(1-4):85-89. 1989. FR 35(1)
[Technol. Lab., Danish Minist. Fish., Bldg. 221, DTH, DK-2800 Lyngby, Denmark]

90-000281 Harada, Katsuhiko. FEEDING ATTRACTION ACTIVITIES OF I-DIPEPTIDES FOR ABALONE, ORIENTAL WEATHERFISH AND YELLOWTAIL. *Nippon Suisan Gakkaishi* 55(9):1629-1634. 1989. In English with Japanese summ. FR 35(1)
[Lab. Biochem., Dep. Food Sci. & Technol., Shimonoseki Univ. Fish., Shimonoseki 759-65, Japan] *Misgurnus anguillicaudatus* and *Seriola quinqueradiata.*

90-000282 Hastings, M. H.; G. Vance and E. Maywood. SOME REFLECTIONS ON THE PHYLOGENY AND FUNCTION OF THE PINEAL. *Experientia (Basel)* 45(10):903-909. 1989. FR 35(1)
[Dep. Anat., Univ. Cambridge, Downing St., Cambridge CB2 3DY, England]

PHYSIOLOGY (CONTINUED)

90-000283 Hatano, Mutsuo; Masao Mizogami; Akira Sugawara and Seiichi Ando. LIPID METABOLISM IN THE LIVER OF CHUM SALMON DURING SPAWNING MIGRATION. *Nippon Suisan Gakkaishi* 55(9):1623-1627. 1989. In English with Japanese summ. FR 35(1)
[Lab. Food Chem. I, Fac. Fish., Hokkaido Univ., Hakodate 041, Japan] *Oncorhynchus keta.*

90-000284 Henmi, Hikaru; Masahiro Hata and Mitsuo Hata. ASTAXANTHIN AND/OR CANTHAXANTHIN-ACTOMYOSIN COMPLEX IN SALMON MUSCLE. *Nippon Suisan Gakkaishi* 55(9):1583-1589. 1989. In English with Japanese summ. FR 35(1)
[Dep. Fish., Tohoku Univ., Sendai, Miyagi 981, Japan] *Oncorhynchus nerka* and *O. kisutch.*

90-000285 Hilton, John W. THE INTERACTION OF VITAMINS, MINERALS AND DIET COMPOSITION IN THE DIET OF FISH. *Aquaculture* 79(1-4):223-244. 1989. FR 35(1)
[Hoffmann-La Roche Ltd., 401 The West Mall, Suite 700, Etobicoke, ON, Canada M9C 5J4]

90-000286 Hinterleitner, S.; J. Thurner-Flur; W. Wieser and N. El-Fiky. PROFILES OF ENZYME ACTIVITY IN LARVAE OF TWO CYPRINID SPECIES WITH CONTRASTING LIFE STYLES (CYPRINIDAE; TELEOSTEI). *J. Fish Biol.* 35(5):709-718. 1989. FR 35(1)
[Wieser: Inst. Zool., Univ. Innsbruck, Technikerstr. 25, A-6020 Innsbruck, Austria] *Rutilus rutilus* and *Chalcalburnus chalcoides.*

90-000287 Holland, Robert A. B. VELOCITY OF OXYGEN UPTAKE BY RED CELLS OF THE RAINBOW TROUT *(SALMO GAIRDNERI)* AT DIFFERENT TEMPERATURES. *Comp. Biochem. Physiol. A Comp. Physiol.* 94(1):147-151. 1989. FR 35(1)
[School Physiol. & Pharmacol., Univ. New South Wales, Kensington, Sydney, N.S.W. 2033, Australia]

90-000288 Hore, Amitabh and Abdul Alim. HISTOPHYSIOLOGY OF THE PINEAL ORGAN IN THE MOSQUITO FISH, *GAMBUSIA AFFINIS. Zool. Anz.* 223(1/2):43-48. 1989. FR 35(1)
[Dep. Zool., Ranchi Univ., Ranchi-834 008, India]

90-000289 Hori, R.; V. Phang and T. J. Lam. TOLERANCE OF JAVANESE MEDAKA TO SALINITY. *Verh. Int. Ver. Limnol.* 23(3):1770-1772. 1988. FR 35(1)
[Dep. Zool., Natl. Univ. Singapore, Kent Ridge, Singapore 0511] *Oryzias javanicus.*

90-000290 Hyde, D. A. and S. F. Perry. DIFFERENTIAL APPROACHES TO BLOOD ACID-BASE REGULATION DURING EXPOSURE TO PROLONGED HYPERCAPNIA IN TWO FRESHWATER TELEOSTS: THE RAINBOW TROUT *(SALMO GAIRDNERI)* AND THE AMERICAN EEL *(ANGUILLA ROSTRATA). Physiol. Zool.* 62(6):1164-1186. 1989. FR 35(1)
[Dep. Biol., Univ. Ottawa, 30 Somerset E., Ottawa, ON, Canada K1N 6N5]

90-000291 James, A. G.; T. Probyn and L. J. Seiderer. NITROGEN EXCRETION AND ABSORPTION EFFICIENCIES OF THE CAPE ANCHOVY *ENGRAULIS CAPENSIS* GILCHRIST FED UPON A VARIETY OF PLANKTON DIETS. *J. Exp. Mar. Biol. Ecol.* 131(2):101-124. 1989. FR 35(1)
[Sea Fish. Res. Inst., Private Bag X2, Rogge Bay, Cape Town 8012, South Africa]

PHYSIOLOGY (CONTINUED)

90-000292 James, A. G.; T. Probyn and L. Hutchings. LABORATORY-DERIVED CARBON AND NITROGEN BUDGETS FOR THE OMNIVOROUS PLANKTIVORE *ENGRAULIS CAPENSIS* GILCHRIST. *J. Exp. Mar. Biol. Ecol.* 131(2):125-145. 1989. FR 35(1)
[Sea Fish. Res. Inst., Private Bag X2, Rogge Bay, Cape Town 8012, South Africa]

90-000293 Jamzadeh, Mehrnaz. ETHOLOGICAL INQUIRY OF ALARM SUBSTANCE IN CHANNEL CATFISH *(ICTALURUS PUNCTATUS). Ph.D. dissertation, South. Ill. Univ. (Carbondale)* 141p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(6):2304. 1989. Order No. DA8922385. FR 35(1)

90-000294 Jarvi, Torbjorn. SYNERGISTIC EFFECT ON MORTALITY IN ATLANTIC SALMON, *SALMO SALAR*, SMOLT CAUSED BY OSMOTIC STRESS AND PRESENCE OF PREDATORS. *Environ. Biol. Fishes* 26(2):149-152. 1989. FR 35(1)
[Norwegian Inst. Nat. Res., Res. Stn. Freshwater Fish, Ims, N-4300 Sandnes, Norway]

90-000295 Kalous, Martin; Hana Rauchova; Antonella Maresca; Jiri Prochazka and Zdenek Drahota. OXIDATIVE METABOLISM OF THE INNER AND OUTER VENTRICULAR LAYERS OF CARP HEART *(CYPRINUS CARPIO* L.). *Comp. Biochem. Physiol. B Comp. Biochem.* 94(4):631-634. 1989. FR 35(1)
[Inst. Physiol., Czechoslovak Acad. Sci., Prague, Czechoslovakia]

90-000296 Kawasaki, Masashi and Walter Heiligenberg. DISTINCT MECHANISMS OF MODULATION IN A NEURONAL OSCILLATOR GENERATE DIFFERENT SOCIAL SIGNALS IN THE ELECTRIC FISH *HYPOPOMUS. J. Comp. Physiol. A Sens. Neural Behav. Physiol.* 165(6):731-741. 1989. FR 35(1)
[Neurobiol. Unit, Scripps Inst. Oceanogr., Univ. Calif. San Diego, A-002, La Jolla 92093]

90-000297 Kestemont, Par P. [STUDY ON THE REPRODUCTIVE CYCLE OF THE GUDGEON, *GOBIO GOBIO* L. PART 2. SEASONAL VARIATION IN THE HISTOLOGY OF TESTICLES.] *J. Appl. Ichthyol.* 5(3):111-121. 1989. In French with English and German summ. FR 35(1)
[Unite Ecol. Eaux Douces, Fac. Univ. N.-D. Paix, 61 rue Bruxelles, B-5000 Namur, Belgium]

90-000298 Kim, Zin Sik and Alexandra Maria Sanger. A NEW FUNCTIONAL MODEL OF THE T-SR JUNCTION BASED ON FINE STRUCTURAL EVIDENCE IN FISH MUSCLE *(RUTILUS RUTILUS). Zool. Anz.* 223(1/2):1-5. 1989. FR 35(1)
[Dep. Zool., Univ. Salzburg, Hellbrunnerstr. 34, A-5020 Salzburg, Austria]

90-000299 Kobayashi, H.; B. Pelster and P. Scheid. WATER AND LACTATE MOVEMENT IN THE SWIMBLADDER OF THE EEL, *ANGUILLA ANGUILLA. Respir. Physiol.* 78(1):45-57. 1989. FR 35(1)
[Scheid: Inst. Physiol., Ruhr-Univ. Bochum, D-4630 Bonn, West Germany]

90-000300 Kolbl, Oskar. [SWIM BLADDER INFLAMMATION IN THE CARP: PROOF OF AN INTRACYTOPLASMICALLY GROWING UNICELLULAR ORGANISM BY MEANS OF TISSUE CULTURE.] *Osterreichs Fischerei* 42(2/3):54-60. 1989. In German with English summ. FR 35(1)
Cyprinus carpio.

90-000301 Konno, Kunihiko and Yoh-ich Ueda. [Mg-ATPase ACTIVITY ENHANCEMENT OF CARP MYOFIBRILS UPON THERMAL TREATMENT.] *Nippon Suisan Gakkaishi* 55(8):1457-1462. 1989. In Japanese with English summ. FR 35(1)

PHYSIOLOGY (CONTINUED)

90-000301 CONTINUED
[Lab. Biochem., Fac. Fish., Hokkaido Univ., Hakodate, Hokkaido 041, Japan] *Cyprinus carpio.*

90-000302 Koulish, S. and C. R. Kramer. HUMAN CHORIONIC GONADOTROPIN (hCG) INDUCES GONAD REVERSAL IN A PROTOGYNOUS FISH, THE BLUEHEAD WRASSE, *THALASSOMA BIFASCIATUM* (TELEOSTEI, LABRIDAE). *J. Exp. Zool.* 252(2):156-168. 1989. FR 35(1)
[Dep. Biol., Coll. Staten Island, CUNY, New York, NY 10301]

90-000303 Koven, W. M.; G. Wm. Kissil and A. Tandler. LIPID AND *n*-3 REQUIREMENT OF *SPARUS AURATA* LARVAE DURING STARVATION AND FEEDING. *Aquaculture* 79(1-4):185-191. 1989. FR 35(1)
[Natl. Cent. Maricult., Israel Oceanogr. & Limnol. Res., P.O. Box 1212, Eilat 88112, Israel]

90-000304 Kugel, B. and R. H. Peterson. PERIVITELLINE FLUID pH OF RAINBOW TROUT (*ONCORHYNCHUS MYKISS*) EGGS IN RELATION TO AMBIENT pH. *Can. J. Fish. Aquat. Sci.* 46(12):2070-2073. 1989. In English with French summ. FR 35(1)
[Inst. Zool. & Hydrobiol., Kaulbachstr. 37, 8000 Munich 22, West Germany]

90-000305 Kuzmina, V. V. SEASONAL DYNAMICS IN THE ACTIVITY OF SOME CARBOHYDRASE AND ALKALINE PHOSPHOTASE ENZYMES IN THE INTESTINAL MUCOSA OF FISH. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):156-161. 1988. FR 35(1)
[Inst. Biol. Interior Waters, Borok, Yaroslav Province, USSR] *Rutilus rutilus, Lota lota, Esox lucius, Stizostedion lucioperca,* and *Abramis brama.*

90-000306 Lahti, Erkki. THE THYROID STATUS OF BALTIC HERRING (*CLUPEA HARENGUS* L.) IN THE GULF OF BOTHNIA (BALTIC SEA) IN RELATION TO AMBIENT SALINITY AND IODINE. *Arch. Hydrobiol.* 117(1):117-125. 1989. FR 35(1)
[Dep. Appl. Zool., Univ. Kuopio, P.P. Box 6, 70211 Kuopio, Finland]

90-000307 Lai, N. Chin; Jeffrey B. Graham; William R. Lowell and Ralph Shabetai. ELEVATED PERICARDIAL PRESSURE AND CARDIAC OUTPUT IN THE LEOPARD SHARK *TRIAKIS SEMIFASCIATA* DURING EXERCISE: THE ROLE OF THE PERICARDIOPERITONEAL CANAL. *J. Exp. Biol.* 147:263-277. 1989. FR 35(1)
[Physiol. Res. Lab., A-004, Scripps Inst. Oceanogr., Univ. Calif., San Diego, La Jolla 92093]

90-000308 Landolt, Marsha L. THE RELATIONSHIP BETWEEN DIET AND THE IMMUNE RESPONSE OF FISH. *Aquaculture* 79(1-4):193-206. 1989. FR 35(1)
[School Fish., WH-10, Univ. Wash., Seattle 98195]

90-000309 Le Bail, Pierre-Yves; Anne Margeridon; Chantal Cauty; Paul Planquette; Etienne Prevost and Maurice Loir. [REPRODUCTIVE BIOLOGY OF *MYLEUS TERNETZI.*] *Aquat. Living Resour.* 2(3):175-183. 1989. In French with English summ. FR 35(1)
[INRA, Lab. Physiol. Poissons, Campus Beaulieu, 35042 Rennes Cedex, France]

90-000310 Leatherland, J. F.; L. Lin; N. E. Down and E. M. Donaldson. THYROID HORMONE CONTENT OF EGGS AND EARLY DEVELOPMENTAL STAGES OF FIVE *ONCORHYNCHUS* SPECIES. *Can. J. Fish. Aquat. Sci.* 46(12):2140-2145.

PHYSIOLOGY (CONTINUED)

90-000310 CONTINUED 1989. In English with French summ. FR 35(1)
[Dep. Zool., Univ. Guelph, Guelph, ON, Canada N1G 2W1] *O. gorbuscha, O. nerka, O. kisutch, O. keta,* and *O. tshawytscha.*

90-000311 Leatherland, J. F.; L. Lin; N. E. Down and E. M. Donaldson. THYROID HORMONE CONTENT OF EGGS AND EARLY DEVELOPMENTAL STAGES OF THREE STOCKS OF GOITRED COHO SALMON *(ONCORHYNCHUS KISUTCH)* FROM THE GREAT LAKES OF NORTH AMERICA, AND A COMPARISON WITH A STOCK FROM BRITISH COLUMBIA. *Can. J. Fish. Aquat. Sci.* 46(12):2146-2152. 1989. In English with French summ. FR 35(1)
[Dep. Zool., Univ. Guelph, Guelph, ON, Canada N1G 2W1]

90-000312 Li Huimei; Zhang Dan and Shi Pinhua. STUDIES ON THE EGG, LARVAL AND JUVENILE DEVELOPMENT OF *BOSTRICHTHYS SINENSIS* (LACEPEDE). *Acta Oceanol. Sin.* 7(2):290-303. 1988. From Ecol. Abstr. 89(6):89L/05787. 1989. FR 35(1)

90-000313 Lie, Oyvind; Einar Lied and Georg Lambertsen. HAEMATOLOGICAL VALUES AND FATTY ACID COMPOSITION OF ERYTHROCYTE PHOSPHOLIPIDS IN COD *(GADUS MORHUA)* FED AT DIFFERENT WATER TEMPERATURES. *Aquaculture* 79(1-4):137-144. 1989. FR 35(1)
[Inst. Nutr., Dir. Fish., P.O. Box 1900, N-5024 Bergen, Norway]

90-000314 Liou, Chyng-Hwa. LYSINE AND SULFUR AMINO ACID REQUIREMENTS OF JUVENILE BLUE TILAPIA *(OREOCHROMIS AUREUS). Ph.D. dissertation, Tex. A&M Univ.* 112p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(6):2228-2229. 1989. Order No. DA8921733. FR 35(1)

90-000315 Lippe, C. and C. Ardizzone. UREA TRANSPORT AND ITS REGULATION ACROSS THE GALL BLADDER OF *TORPEDO MARMORATA. J. Exp. Zool. Suppl.* (2):143-145. 1989. FR 35(1)
[Ist. Fisiol. Gen., Via Amendola 165/a, 70126 Bari, Italy]

90-000316 Lorenzo, A.; S. Cozzi; P. Badia and A. Bolanos. INTESTINAL PHENYLALANINE TRANSPORT IN THE CULTURED GILTHEAD BREAM *(SPARUS AURATA). Comp. Biochem. Physiol. A Comp. Physiol.* 94(2):209-213. 1989. FR 35(1)
[Lab. Fisiol., Dep. Biol. Anim., Fac. Biol., Univ. La Laguna, Tenerife, Spain]

90-000317 Lou, Ya-Huan and Hiroya Takahashi. THE BLOOD-TESTIS BARRIER AND ITS BREAKDOWN FOLLOWING IMMUNIZATION TO TESTIS MATERIAL IN THE NILE TILAPIA, *OREOCHROMIS NILOTICUS. Cell Tissue Res.* 258(3):491-498. 1989. FR 35(1)
[Takahashi: Dep. Biol., Fac. Fish., Hokkaido Univ., 3-1-1 Minato-cho, Hakodate 041, Japan]

90-000318 Lou, Ya-Huan; Akihiko Hara and Hiroya Takahashi. INDUCTION OF AUTOANTIBODIES AGAINST SPERMATOZOA BY INJECTION OF ALLOGENEIC SPERM IN THE NILE TILAPIA, *OREOCHROMIS NILOTICUS. Comp. Biochem. Physiol. B Comp. Biochem.* 94(4):829-836. 1989. FR 35(1)
[Takahashi: Dep. Biol., Fac. Fish., Hokkaido Univ., 3-1-1 Minato-cho, Hakodate 041, Japan]

90-000319 Lubin, Robert T. ULTRASTRUCTURAL ALTERATIONS IN BRANCHIAL CHLORIDE CELLS OF ATLANTIC SALMON *(SALMO SALAR)* DURING PARR-SMOLT TRANSFORMATION AND EARLY DEVELOPMENT IN SEAWATER AND THE INFLUENCE OF

PHYSIOLOGY (CONTINUED)

90-000319 CONTINUED PHOTOPERIOD ON BRANCHIAL CHLORIDE CELL ULTRASTRUCTURE BEFORE AND DURING SMOLTIFICATION. *M.S. thesis, Univ. Idaho* 69p. 1989. FR 35(1)

90-000320 Lukyanenko, V. I.; V. A. Ternovenko and E. L. Nikiforova. [EFFECT OF THE DIURNAL RHYTHM AND SALINITY ON THE ABILITY OF STICKLEBACK FRY TO AVOID ZINC.] *Gidrobiol. Zh.* 25(3):60-63. 1989. In Russian with English summ. FR 35(1)

90-000321 Madsen, S. S. EXTRATHYROIDAL EFFECTS OF THIOUREA TREATMENT IN RAINBOW TROUT (*SALMO GAIRDNERI*) RAPIDLY TRANSFERRED FROM FRESH WATER TO DILUTE SEA-WATER. *Comp. Biochem. Physiol. A Comp. Physiol.* 94(2):277-282. 1989. FR 35(1)
[Inst. Biol., Odense Univ., Campusvej 55, DK-5230 Odense M, Denmark]

90-000322 Malte, Hans. PRESSURE/FLOW RELATIONS IN THE INTERLAMELLAR SPACE OF FISH GILLS: THEORY AND APPLICATION IN THE RAINBOW TROUT. *Respir. Physiol.* 78(2):229-242. 1989. FR 35(1)
[Dep. Zoophysiol., Univ. Aarhus, DK-8000 Aarhus C, Denmark]

90-000323 Manna, Pulak R.; Partha Pratim Banerjee and Samir Bhattacharya. HOMOLOGOUS RADIOIMMUNOASSAY AND RADIORECEPTORASSAY OF GONADOTROPIC HORMONE FOR AN INDIAN CARP *CATLA CATLA*. *Indian J. Exp. Biol.* 27(5):399-403. 1989. FR 35(1)
[Bhattacharya: Dep. Zool., School Life Sci., Visva-Bharati Univ., Santiniketan 731 235, India]

90-000324 Matsui, Risako; Hazime Yamauchi; Hiroshige Suganuma; Masami Ishida and Shigeru Kimura. [SUBUNIT COMPOSITION OF TYPE I COLLAGEN FROM FISH IN SALMONOIDEI.] *Nippon Suisan Gakkaishi* 55(8):1421-1426. 1989. In Japanese with English summ. FR 35(1)
[Lab. Food Biochem., Food Sci. & Technol., Tokyo Univ. Fish., Konan, Minato, Tokyo 108, Japan]

90-000325 Matsuno, Takao and Eiji Yamashita. THE FIRST ISOLATION AND IDENTIFICATION OF THE TENTH STEREOISOMER OF TUNAXANTHIN, TUNAXANTHIN E, FROM THE BIWA GOBY *CHAENOGOBIUS ISAZA*. *Nippon Suisan Gakkaishi* 55(9):1667. 1989. In English. FR 35(1)
[Dep. Nat. Products Res., Kyoto Pharm. Univ., Misasagi, Yamashina, Kyoto 607, Japan]

90-000326 Mayer, Ian; Bertil Borg and Rudiger Schulz. CONVERSION OF 11-KETOANDROSTENEDIONE TO 11-KETOTESTOSTERONE BY BLOOD CELLS OF SIX FISH SPECIES. *Gen. Comp. Endocrinol.* 77(1):70-74. 1990. FR 35(1)
[Dep. Zool., Univ. Stockholm, S-106 91 Stockholm, Sweden] *Gasterosteus aculeatus, Salmo salar, Zoarces viviparus, Carassius carassius, Clarias gariepinus,* and *Calamoichthys calabaricus.*

90-000327 McDonald, D. G.; Y. Tang and R. G. Boutilier. THE ROLE OF β-ADRENORECEPTORS IN THE RECOVERY FROM EXHAUSTIVE EXERCISE OF FRESHWATER-ADAPTED RAINBOW TROUT. *J. Exp. Biol.* 147:471-491. 1989. FR 35(1)
[Dep. Biol., McMaster Univ., 1280 Main St. W., Hamilton, ON, Canada L8S 4K1] *Oncorhynchus mykiss.*

90-000328 McMillan, D. N. and D. F. Houlihan. SHORT-TERM RESPONSES OF PROTEIN SYNTHESIS TO RE-FEEDING IN RAINBOW TROUT. *Aquaculture* 79(1-4):37-46. 1989. FR 35(1)

PHYSIOLOGY (CONTINUED)

90-000328 CONTINUED
[Dep. Zool., Tillydrone Ave., Univ. Aberdeen, Aberdeen AB9 2TN, Scotland] *Oncorhynchus mykiss.*

90-000329 McWilliams, P. G. and K. L. Shephard. KINETIC CHARACTERISTICS OF THE SODIUM UPTAKE MECHANISM DURING THE DEVELOPMENT OF EMBRYOS AND FRY OF ATLANTIC SALMON, *SALMO SALAR* L., IN AN IMPROVED WATER QUALITY. *J. Fish Biol.* 35(6):855-868. 1989. FR 35(1)
[Zool. Lab., Univ. Bergen, Allegaten 41, 5007 Bergen, Norway]

90-000330 Milbrink, Goran and Staffan Holmgren. NUTRIENT ENRICHMENT AND INCREASE IN FISH GROWTH. *Verh. Int. Ver. Limnol.* 23(3):1730-1736. 1988. FR 35(1)
[Dep. Zool. & Inst. Limnol., Uppsala Univ., Box 561, S-751 22 Uppsala, Sweden]

90-000331 Millward, D. J. THE NUTRITIONAL REGULATION OF MUSCLE GROWTH AND PROTEIN TURNOVER. *Aquaculture* 79(1-4):1-28. 1989. FR 35(1)
[Nutr. Res. Unit, London School Hyg. & Trop. Med., St. Pancras Hospital, 4 St. Pancras Way, London NW1 2PE, England]

90-000332 Moiseeva, E. B. [DIFFERENTIATION OF THE THYROTROPIC CELLS AND HYPOPHYSO-THYROID RELATIONS IN THE YOUNG LEAPING GREY MULLET *LIZA SALIENS.*] *Mar. Biol. (Vladivostok)* 1989(1):32-39. 1989. In Russian with English summ. FR 35(1)
[Lab. Physiol. & Artificial Reprod. Fish, Azov-Black Sea Res. Inst. Mar. Fish. & Oceanogr., Kerch 334500, USSR]

90-000333 Moser, M. L. and W. F. Hettler. ROUTINE METABOLISM OF JUVENILE SPOT, *LEIOSTOMUS XANTHURUS* (LACEPEDE), AS A FUNCTION OF TEMPERATURE, SALINITY AND WEIGHT. *J. Fish Biol.* 35(5):703-707. 1989. FR 35(1)
[Box 7617, Zool. Dep., N.C. State Univ., Raleigh 27695-7617]

90-000334 Mugiya, Y. and T. Uchimura. OTOLITH RESORPTION INDUCED BY ANAEROBIC STRESS IN THE GOLDFISH, *CARASSIUS AURATUS*. *J. Fish Biol.* 35(6):813-818. 1989. FR 35(1)
[Fac. Fish. Hokkaido Univ., Minato-3, Hakodate 041, Japan]

90-000335 Muramoto, Manabu and Nobuo Seki. [MODE OF THE EXISTENCE OF CARP MYOSIN DIGESTED BY CALPAIN.] *Nippon Suisan Gakkaishi* 55(9):1615-1622. 1989. In Japanese with English summ. FR 35(1)
[Dep. Food Sci., Fac. Fish., Hokkaido Univ., Hakodate 041, Japan] *Cyprinus carpio.*

90-000336 Muramoto, Manabu and Nobuo Seki. [PROTEOLYTIC CLEAVAGES OF CARP MYOSIN BY SEVERAL PROTEASES.] *Nippon Suisan Gakkaishi* 55(9):1605-1613. 1989. In Japanese with English summ. FR 35(1)
[Dep. Food Sci., Fac. Fish., Hokkaido Univ., Hakodate 041, Japan] *Cyprinus carpio.*

90-000337 Murata, Hisashi and Kiyoshi Yamauchi. [RELATIONSHIP BETWEEN THE 2-THIOBARBITURIC ACID VALUES OF SOME TISSUES FROM CULTURED RED SEA BREAM AND ITS DIETARY α-TOCOPHEROL LEVELS.] *Nippon Suisan Gakkaishi*

PHYSIOLOGY (CONTINUED)

90-000337 CONTINUED 55(8):1435-1439. 1989. In Japanese with English summ. FR 35(1)
[Fac. Agric., Miyazaki Univ., Miyazaki 889-21, Japan] *Pagrus major.*

90-000338 Nassour, Ibrahim and Claude Louis Leger. DEPOSITION AND MOBILISATION OF BODY FAT DURING SEXUAL MATURATION IN FEMALE TROUT (*SALMO GAIRDNERI* RICHARDSON). *Aquat. Living Resour.* 2(3):153-159. 1989. In English with French summ. FR 35(1)
[INRA, Stn. Rech. Nutr., 78350 Jouy-en-Josas, France]

90-000339 Navarre, Olivier and John E. Halver. DISEASE RESISTANCE AND HUMORAL ANTIBODY PRODUCTION IN RAINBOW TROUT FED HIGH LEVELS OF VITAMIN C. *Aquaculture* 79(1-4):207-221. 1989. FR 35(1)
[School Fish., WH-10, Univ. Wash., Seattle 98195] *Oncorhynchus mykiss.*

90-000340 Nordlie, Frank G. and Stephen J. Walsh. ADAPTIVE RADIATION IN OSMOTIC REGULATORY PATTERNS AMONG THREE SPECIES OF CYPRINODONTIDS (TELEOSTEI: ATHERINOMORPHA). *Physiol. Zool.* 62(6):1203-1218. 1989. FR 35(1)
[Dep. Zool., Univ. Fla., Gainesville 32611] *Floridichthys carpio, Jordanella floridae,* and *Cyprinodon variegatus.*

90-000341 Olin, T. and A. Von der Decken. VITELLOGENIN SYNTHESIS IN ATLANTIC SALMON (*SALMO SALAR*) AT DIFFERENT ACCLIMATION TEMPERATURES. *Aquaculture* 79(1-4):397-402. 1989. FR 35(1)
[Wenner-Gren Inst. Exp. Biol., Univ. Stockholm, S-106 91 Stockholm, Sweden]

90-000342 Olivereau, M.; J. Olivereau and F. Vandesande. LOCALIZATION OF GROWTH HORMONE-RELEASING FACTOR-LIKE IMMUNOREACTIVITY IN THE HYPOTHALAMO-HYPOPHYSIAL SYSTEM OF SOME TELEOST SPECIES. *Cell Tissue Res.* 259(1):73-80. 1990. FR 35(1)
[Lab. Physiol., Inst. Oceanogr., 195 rue Saint-Jacques, F-75005 Paris, France] *Anguilla anguilla, Carassius auratus, Cyprinus carpio, Oncorhynchus mykiss, O. tshawytscha, Salmo trutta fario, Myoxocephalus octodecimspinosus,* and *Mugil ramada.*

90-000343 Orlandini, G.; N. Reali; M. E. Soldi; F. Bacciottini; R. Viviani and A. Casti. EFFECT OF TEMPERATURE AND DIET ON POLYAMINE CONCENTRATIONS OF THE EUROPEAN SEA BASS (*DICENTRARCHUS LABRAX* L.). *Comp. Biochem. Physiol. B Comp. Biochem.* 94(3):581-585. 1989. FR 35(1)
[Casti: Ist. Chim. Biol. Univ., Studi Parma, Gramsci 14, 43100 Parma, Italy]

90-000344 Ota, Toru and Toru Takagi. FATTY ACIDS OF LIPIDS FROM FISH TESTES WITH PARTICULAR REFERENCE TO FURAN FATTY ACIDS. *Bull. Fac. Fish. Hokkaido Univ.* 40(3):193-201. 1989. In English. FR 35(1)
[Lab. Mar. Lipid Chem., Fac. Fish., Hokkaido Univ., Hakodate, Japan] *Clupea harengus pallasi, Oncorhynchus keta, O. kisutch, Osmerus mordax, Theragra chalcogramma,* and *Salvelinus leucomaenis.*

90-000345 Owiti, D. O. and S. Dadzie. MATURITY, FECUNDITY AND THE EFFECT OF REDUCED RAINFALL ON THE SPAWNING RHYTHM OF A SILUROID CATFISH, *CLARIAS MOSSAMBICUS* (PETERS). *Aquacult. Fish. Manage.* 20(4):355-368. 1989. FR 35(1)
[Dadzie: Dep. Zool., Univ. Nairobi, P.O. Box 30197, Nairobi, Kenya]

PHYSIOLOGY (CONTINUED)

90-000346 Peres, Gabriel and Helene Roche. [EFFECTS OF AN EXPERIMENTAL DECREASE IN THE WATER SALINITY UPON SUPEROXIDE DISMUTASE, CATALASE AND PEROXIDASE ACTIVITIES FROM AN EURYHALIN SEA FISH, THE SEA BASS (*DICENTRARCHUS LABRAX* L.).] *C.R. Seances Soc. Biol. Fil.* 183(3):247-255. 1989. In French with English summ. FR 35(1)
[Inst. Michel Pacha, Lab. Maritime Physiol., Univ. Claude-Bernard (Lyon I), 83500 Tamaris-sur-mer, France]

90-000347 Perez, J.; J. Gutierrez; M. Carrillo; S. Zanuy and J. Fernandez. EFFECT OF BONITO INSULIN INJECTION ON PLASMA IMMUNOREACTIVE GLUCAGON LEVELS AND CARBOHYDRATE AND LIPID METABOLISM OF SEA BASS *(DICENTRARCHUS LABRAX)*. *Comp. Biochem. Physiol. A Comp. Physiol.* 94(1):33-36. 1989. FR 35(1)
[Inst. Acuicult. Torre Sal (C.S.I.C.), Ribera Cabanes 12595, Catellon, Spain]

90-000348 Perrott, Mark Nigel. THE RENIN-ANGIOTENSIN SYSTEM AND OSMOREGULATION IN FISH. *Ph.D. dissertation, Univ. Manchester (United Kingdom)* 280p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(4):1273. 1989. Order No. BRD-85858. FR 35(1)

90-000349 Perry, S. F.; D. Seguin; F. P. J. G. Lafeber; S. E. Wendelaar Bonga and J. C. Fenwick. DEPRESSION OF WHOLE-BODY CALCIUM UPTAKE DURING ACUTE HYPERCALCAEMIA IN AMERICAN EEL, *ANGUILLA ROSTRATA*, IS MEDIATED EXCLUSIVELY BY CORPUSCLES OF STANNIUS. *J. Exp. Biol.* 147:249-261. 1989. FR 35(1)
[Dep. Biol., Univ. Ottawa, 30 Somerset St. E., Ottawa, ON, Canada K1N 6N5]

90-000350 Perry, Steve F. and Pierre Laurent. ADAPTATIONAL RESPONSES OF RAINBOW TROUT TO LOWERED EXTERNAL NaCl CONCENTRATION: CONTRIBUTION OF THE BRANCHIAL CHLORIDE CELL. *J. Exp. Biol.* 147:147-168. 1989. FR 35(1)
[Univ. Ottawa, Dep. Biol., 30 Somerset St. E., Ottawa, ON, Canada K1N 6N5] *Oncorhynchus mykiss*.

90-000351 Petersen, Claudia G.; Arno Rudi Schwantes; Paulo H. de Luca and Maria Luiza B. Schwantes. FUNCTIONAL PROPERTIES OF THE TWO MAJOR HEMOGLOBIN COMPONENTS FROM *LEPORINUS FRIDERICI* (PISCES). *Comp. Biochem. Physiol. B Comp. Biochem.* 94(4):823-827. 1989. FR 35(1)
[Univ. Fed. Sao Carlos, Dep. Cienc. Biol., C.P. 676, 13560 Sao Carlos, SP, Brazil]

90-000352 Petrino, Teresa R.; M. S. Greeley, Jr.; K. Selman; Y.-W. P. Lin and R. A. Wallace. STEROIDOGENESIS IN *FUNDULUS HETEROCLITUS*. II. PRODUCTION OF 17α-HYDROXY-20β-DIHYDROPROGESTERONE, TESTOSTERONE, AND 17β-ESTRADIOL BY VARIOUS COMPONENTS OF THE OVARIAN FOLLICLE. *Gen. Comp. Endocrinol.* 76(2):230-240. 1989. FR 35(1)
[Whitney Lab., Univ. Fla., St. Augustine 32086]

90-000353 Pettersson, Kurt. THE MOBILITY OF PHOSPHORUS IN FISH-FOODS AND FECALS. *Verh. Int. Ver. Limnol.* 23(1):200-206. 1988. FR 35(1)
[Erken Lab., Inst. Limnol., Univ. Uppsala, PL 4200, S-761 00 Norrtalje, Sweden] *Oncorhynchus mykiss*.

90-000354 Phleger, C. F. and R. J. Laub. SKELETAL FATTY ACIDS IN FISH FROM DIFFERENT DEPTHS OFF JAMAICA. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(2):329-334. 1989. FR 35(1)
[Dep. Nat. Sci., San Diego State Univ., San Diego, CA 92182] *Pristipomoides macropthalmus, Melanonous zugmayeri, Acanthurus bahianus,* and *Priacanthus arenatus*.

PHYSIOLOGY (CONTINUED)

90-000355 Playle, Richard C. and Chris M. Wood. WATER CHEMISTRY CHANGES IN THE GILL MICRO-ENVIRONMENT OF RAINBOW TROUT: EXPERIMENTAL OBSERVATIONS AND THEORY. *J. Comp. Physiol. B Biochem. Syst. Environ. Physiol.* 159(5):527-537. 1989. FR 35(1)
[Dep. Biol., McMaster Univ., Hamilton, ON, Canada L8S 4K1] *Oncorhynchus mykiss.*

90-000356 Polunin, N. V. C. and E. B. Brothers. LOW EFFICIENCY OF DIETARY CARBON AND NITROGEN CONVERSION TO GROWTH IN AN HERBIVOROUS CORAL-REEF FISH IN THE WILD. *J. Fish Biol.* 35(6):869-879. 1989. FR 35(1)
[Dep. Biol., The Univ., Newcastle upon Tyne NE1 7RU, England] *Plectroglyphidodon lacrymatus* in Papua New Guinea.

90-000357 Poston, Hugh A. and H. George Ketola. CHEMICAL COMPOSITION OF MATURING AND SPAWNING ATLANTIC SALMON FROM DIFFERENT LOCATIONS. *Prog. Fish-Cult.* 51(3):133-139. 1989. FR 35(1)
[U.S. Fish & Wildl. Serv., Tunison Lab. Fish Nutr., 3075 Gracie Rd., Cortland, NY 13045] *Salmo salar.*

90-000358 Pradhan, R. K.; S. K. Saini; J. Biswas and A. K. Pati. INFLUENCE OF HUMAN URINARY ERYTHROPOIETIN AND l-THYROXINE ON BLOOD MORPHOLOGY AND ENERGY RESERVES IN TWO TROPICAL SPECIES OF FED AND STARVED TELEOSTS. *Gen. Comp. Endocrinol.* 76(3):382-389. 1989. FR 35(1)
[Dep. Biosci., Ravishankar Univ., Raipur-492 010, India] *Clarias batrachus* and *Heteropneustes fossilis.*

90-000359 Prasad, M. S. A COMPARATIVE STUDY OF THE MORPHOMETRICS OF WATER-BLOOD DIFFUSION BARRIER AT THE SECONDARY GILL LAMELLAE OF *CHANNA GACHUA* AND *ESOMUS DANRICUS* DURING EARLY LIFE. *Eur. Arch. Biol.* 100(2):129-139. 1989. FR 35(1)
[Dep. Zool., Bihar Univ., Chakbasu, Ramna, Muzaffarpur 842 002, India]

90-000360 Prunet, Patrick and Michel Bornancin. PHYSIOLOGY OF SALINITY TOLERANCE IN TILAPIA: AN UPDATE OF BASIC AND APPLIED ASPECTS. *Aquat. Living Resour.* 2(2):91-97. 1989. In English with French summ. FR 35(1)
[INRA, Lab. Physiol. Poissons, Campus Beaulieu, 35042 Rennes Cedex, France] *Tilapia.*

90-000361 Pusey, B. J. and T. Stewart. INTERNAL FERTILIZATION IN *LEPIDOGALAXIAS SALAMANDROIDES* MEES (PISCES: LEPIDOGALAXIIDAE). *Zool. J. Linn. Soc.* 97(1):69-79. 1989. FR 35(1)
[Cent. Catchment & In-Stream Res., Div. Australian Environ. Studies, Griffith Univ., Nathan, Qld. 4111, Australia]

90-000362 Raymond, James A. FREEZING RESISTANCE IN SOME NORTHERN POPULATIONS OF PACIFIC HERRING, *CLUPEA HARENGUS PALLASI. Can. J. Fish. Aquat. Sci.* 46(12):2104-2107. 1989. In English with French summ. FR 35(1)
[Dep. Fish & Game, 1300 College Rd., Fairbanks, AK 99701]

90-000363 Raynard, Robert Steele. THERMAL COMPENSATION OF TRANSPORT SYSTEMS OF RAINBOW TROUT ERYTHROCYTES. *Ph.D. dissertation, Univ. Liverpool (United Kingdom)* 259p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1798. 1989. Order No. BRDX86184. FR 35(1)
Oncorhynchus mykiss.

PHYSIOLOGY (CONTINUED)

90-000364 Razani, Hossein; Isao Hanyu; Katsumi Aida and Kiyoshi Furukawa. REMATURATION OF FEMALE GOLDFISH UNDER CONTINUED WARM OR COOL TEMPERATURE IN COMBINATION WITH SHORT OR LONG PHOTOPERIOD. *Nippon Suisan Gakkaishi* 55(9):1499-1504. 1989. In English with Japanese summ. FR 35(1)
[Dep. Fish., Fac. Agric., Univ. Tokyo, Bunkyo-ku, Tokyo 113, Japan] *Carassius auratus.*

90-000365 Razani, Hossein; Isao Hanyu; Katsumi Aida and Kiyoshi Furukawa. REMATURATION OF MALE GOLDFISH UNDER CONTINUED WARM OR COOL TEMPERATURE IN COMBINATION WITH SHORT OR LONG PHOTOPERIOD. *Nippon Suisan Gakkaishi* 55(9):1505-1510. 1989. In English with Japanese summ. FR 35(1)
[Dep. Fish., Fac. Agric., Univ. Tokyo, Bunkyo-ku, Tokyo 113, Japan] *Carassius auratus.*

90-000366 Rehbein, H. and E. van Lessen. [INDICATIONS OF THE EXISTENCE OF PARVALBUMINS IN SALMON AND TROUT.] *Arch. Fischereiwiss.* 39(3):147-162. 1989. In German with English summ. FR 35(1)
[Inst. Biochem. & Technol., Bundesforschungastalt Fischerei, Palmaille 9, D-2000 Hamburg 50, West Germany] *Salmo trutta, S. salar, Oncorhynchus mykiss, O. keta, O. kisutch,* and *O. tshawytscha.*

90-000367 Rodrigues, A. L.; M. L. Bellinaso and T. Dick. EFFECT OF SOME METAL IONS ON BLOOD AND LIVER DELTA-AMINOLEVULINATE DEHYDRATASE OF *PIMELODUS MACULATUS* (PISCES, PIMELODIDAE). *Comp. Biochem. Physiol. B Comp. Biochem.* 94(1):65-69. 1989. FR 35(1)
[Dep. Bioquim. & Cent. Ecol., Inst. Biocienc., Univ. Fed. Rio Grande do Sul, Porto Alegre, Brazil]

90-000368 Ruggerone, Gregory T. GASTRIC EVACUATION OF SINGLE AND MULTIPLE MEALS BY PISCIVOROUS COHO SALMON, *ONCORHYNCHUS KISUTCH. Environ. Biol. Fishes* 26(2):143-147. 1989. FR 35(1)
[Fish. Res. Inst., WH-10, Univ. Wash., Seattle 98195]

90-000369 Samejima, M.; S. Tamotsu; K. Watanabe and Y. Morita. PHOTORECEPTOR CELLS AND NEURAL ELEMENTS WITH LONG AXONAL PROCESSES IN THE PINEAL ORGAN OF THE LAMPREY, *LAMPETRA JAPONICA,* IDENTIFIED BY USE OF THE HORSERADISH PEROXIDASE METHOD. *Cell Tissue Res.* 258(2):219-224. 1989. FR 35(1)
[Morita: First Dep. Physiol., Hamamatsu Univ. School Med., Handa-cho 3600, Hamamatsu 431-31, Japan]

90-000370 Sanchez, C.; J. Dominguez and J. Coll. IMMUNOGLOBULIN HETEROGENEITY IN THE RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON. *J. Fish Dis.* 12(5):459-465. 1989. FR 35(1)
[Inst. Nac. Invest. Agrarias CRIDA 06, Dep. Virol., Embajadores, 68, 28012-Madrid, Spain]

90-000371 Santulli, Andrea; Amelia Curatolo; Alfonso Modica; Lucia D'Amelio and Vincenzo D'Amelio. SERUM LIPOPROTEINS OF SEA BASS (*DICENTRARCHUS LABRAX* L.). PURIFICATION AND PARTIAL CHARACTERIZATION BY DENSITY GRADIENT ULTRACENTRIFUGATION AND AGAROSE COLUMN CHROMATOGRAPHY. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(4):613-619. 1989. FR 35(1)
[Ist. Biol. Mar., Libera Univ. Trapani, Villa Nasi, Viale Lazzaretto, 91100 Trapani, Italy]

90-000372 Sasaki, Shigefumi; Toru Ota and Toru Takagi. COMPOSITIONS OF FATTY ACIDS IN THE LIPIDS OF MASU SALMON AND PINK SALMON, AND LATER CANNED FLESH. *Nippon Suisan Gakkaishi* 55(9):1655-1660. 1989. In English with

PHYSIOLOGY (CONTINUED)

90-000372 CONTINUED Japanese summ. FR 35(1)
[Fac. Fish., Hokkaido Univ., Hakodate 041, Japan] *Oncorhynchus masou* and *O. gorbuscha*.

90-000373 Sato, Kenji; Reiji Yoshinaka and Mamoru Sato. HYDROXYPROLINE CONTENT IN THE ACID-SOLUBLE COLLAGEN FROM MUSCLE OF SEVERAL FISHES. *Nippon Suisan Gakkaishi* 55(8):1467. 1989. In English. FR 35(1)
[Dep. Fish., Fac. Agric., Kyoto Univ., Sakyo, Kyoto 606, Japan] Data for 22 species.

90-000374 Satoh, Shuichi; William E. Poe and Robert P. Wilson. STUDIES ON THE ESSENTIAL FATTY ACID REQUIREMENT OF CHANNEL CATFISH, *ICTALURUS PUNCTATUS*. *Aquaculture* 79(1-4):121-128. 1989. FR 35(1)
[Lab. Fish Nutr., Tokyo Univ. Fish., Konan 4, Minato, Tokyo 108, Japan]

90-000375 Sedik, M. F.; E. E. Safwat; A. M. Ibrahim and A. E. Shaban. STUDIES ON SOME SPECIES OF LOCALLY PRODUCED FISH. *Vet. Med. J. Giza* 37(2):197-207. 1989. FR 35(1)
[Food Hygiene Dep., Fac. Vet. Med., Cairo Univ. & Food Hygiene Dep., Anim. Health Res. Inst., Dokki, Giza, Egypt] *Tilapia nilotica* and *Mugil cephalus*.

90-000376 Segner, Helmut; Peter Arend; Klaus Von Poeppinghausen and Hartmut Schmidt. THE EFFECT OF FEEDING ASTAXANTHIN TO *OREOCHROMIS NILOTICUS* AND *COLISA LABIOSA* ON THE HISTOLOGY OF THE LIVER. *Aquaculture* 79(1-4):381-390. 1989. FR 35(1)
[Schmidt: TetraWerke, Dr. Rer. Nat., Ulrich Baensch GmbH, Herrenteich 78, D-4520 Melle 1, West Germany]

90-000377 Shelton, C. J. THE EFFECTS OF HIGH HYDROSTATIC PRESSURE ON FISH RED BLOOD CELLS. *Ph.D. dissertation, Univ. Aberdeen (United Kingdom)* 237p. 1984. From Diss. Abstr. Int. B Sci. Eng. 50(6):2298. 1989. Order No. BRDX86275. FR 35(1)
Pleuronectes platessa.

90-000378 Shoji, Tamotsu; Hiroki Saeki; Makoto Nakamura; Yasuhiko Sasamoto and Michio Nonaka. [HIGH PRESSURE INDUCED INACTIVATION OF CARP MYOFIBRILLAR Ca-ATPase AND PROTECTING EFFECT OF SORBITOL.] *Nippon Suisan Gakkaishi* 55(10):1841-1844. 1989. In Japanese with English summ. FR 35(1)
[Taiyo Res. Lab., Taiyo Fish. Co. Ltd., Tsukishima, Chuo, Tokyo 104, Japan] *Cyprinus carpio*.

90-000379 Shuter, B. J.; P. E. Ihssen; D. L. Wales and E. J. Snucins. THE EFFECTS OF TEMPERATURE, pH AND WATER HARDNESS ON WINTER STARVATION OF YOUNG-OF-THE-YEAR SMALLMOUTH BASS, *MICROPTERUS DOLOMIEUI* LACEPEDE. *J. Fish Biol.* 35(6):765-780. 1989. FR 35(1)
[Ontario Minist. Nat. Resour., Res. Sect., Fish. Branch, Box 5000, Maple, ON, Canada L6A 1S9]

90-000380 Smith, John S. and Peter Thomas. BINDING CHARACTERISTICS OF THE HEPATIC ESTROGEN RECEPTOR OF THE SPOTTED SEATROUT, *CYNOSCION NEBULOSUS*. *Gen. Comp. Endocrinol.* 77(1):29-42. 1990. FR 35(1)
[Mar. Sci. Inst., Univ. Tex. Austin, Port Aransas 78373]

PHYSIOLOGY (CONTINUED)

90-000381 Smith, N. F.; C. Talbot and F. B. Eddy. DIETARY SALT INTAKE AND ITS RELEVANCE TO IONIC REGULATION IN FRESHWATER SALMONIDS. *J. Fish Biol.* 35(6):749-753. 1989. FR 35(1)
[Dep. Biol. Sci., Univ. Dundee, Dundee DD1 4HN, Scotland]

90-000382 Soivio, Antti; Marjut Niemisto and Monica Backstrom. FATTY ACID COMPOSITION OF *COREGONUS MUKSUN* PALLAS: CHANGES DURING INCUBATION, HATCHING, FEEDING AND STARVATION. *Aquaculture* 79(1-4):163-168. 1989. FR 35(1)
[Dep. Zool., Univ. Helsinki, Div. Physiol., Arkadiankatu 7, SF-00100 Helsinki, Finland]

90-000383 Soldatov, A. A. [OXYGEN-BINDING BLOOD FUNCTION OF *NEGOBIUS MELANOSTOMUS* ADAPTED TO TEMPERATURE CONDITIONS OF THE ENVIRONMENT.] *Gidrobiol. Zh.* 25(2):58-62. 1989. In Russian with English summ. FR 35(1)

90-000384 Stickney, Robert R. and Ronald W. Hardy. LIPID REQUIREMENTS OF SOME WARMWATER SPECIES. *Aquaculture* 79(1-4):145-156. 1989. FR 35(1)
[School Fish., Univ. Wash., Seattle 98195] *Ictalurus punctatus, Oncorhynchus mykiss,* and *Tilapia* spp.

90-000385 Sugita, Haruo; Chihiro Miyajima; Yoshiaki Kobiki and Yoshiaki Deguchi. DAILY CHANGES OF THE FECAL FLORA OF TILAPIA *SAROTHERODON NILOTICUS. Nippon Suisan Gakkaishi* 55(10):1865. 1989. In English. FR 35(1)
[Dep. Fish., Nihon Univ., Shimouma, Setagaya, Tokyo 154, Japan]

90-000386 Suzuki, Keiko; Eddy S. P. Tan and Bun-ichi Tamaoki. CHANGE OF STEROIDOGENIC PATHWAYS IN THE OVARY OF A TROPICAL CATFISH, *CLARIAS MACROCEPHALUS,* GUNTHER, AFTER hCG TREATMENT. *Gen. Comp. Endocrinol.* 76(2):223-229. 1989. FR 35(1)
[Natl. Inst. Radiol. Sci., 9-1, Anagawa-4-chome, Chiba-shi 260, Japan]

90-000387 Sweeting, Ruston Mathew. ASPECTS OF GROWTH HORMONE IN THE PHYSIOLOGY OF SMOLTIFICATION AND SEAWATER ADAPTATION OF COHO SALMON, *ONCORHYNCHUS KISUTCH. Ph.D. dissertation, Simon Fraser Univ. (Canada)* 1989. From Diss. Abstr. Int. B Sci. Eng. 50(6):2299. 1989. FR 35(1)

90-000388 Tagawa, Masatomo and Tetsuya Hirano. CHANGES IN TISSUE AND BLOOD CONCENTRATIONS OF THYROID HORMONES IN DEVELOPING CHUM SALMON. *Gen. Comp. Endocrinol.* 76(3):437-443. 1989. FR 35(1)
[Ocean Res. Inst., Univ. Tokyo, Nakano, Tokyo 164, Japan] *Oncorhynchus keta.*

90-000389 Tagliafierro, Grazia; Giuseppe G. Rossi; Elisabetta Bonini; Gabriella Faraldi and Luisella Farina. ONTOGENY AND DIFFERENTIATION OF REGULATORY PEPTIDE-AND SEROTONIN-IMMUNOREACTIVITY IN THE GASTROINTESTINAL TRACT OF AN ELASMOBRANCH. *J. Exp. Zool. Suppl.* (2):165-174. 1989. FR 35(1)
[Ist. Anat. Comp., Univ. Genova, Viale Benedetto XV, 5, 16132 Genova, Italy] *Scyliorhinus stellaris.*

90-000390 Takahashi, Akiyoshi; Tsuyoshi Ogasawara; Hiroshi Kawauchi and Tetsuya Hirano. PLASMA PROFILES OF THE N-TERMINAL PEPTIDE OF PROOPIOMELANOCORTIN IN THE RAINBOW TROUT WITH REFERENCE TO STRESS. *Gen.*

PHYSIOLOGY (CONTINUED)

90-000390 CONTINUED *Comp. Endocrinol.* 77(1):98-106. 1990. FR 35(1)
[Dep. Mol. Biol., School Med., Kitasato Univ., Sagamihara, Kanagawa 228, Japan] *Oncorhynchus mykiss.*

90-000391 Takeda, T. CUTANEOUS AND GILL O_2 UPTAKE IN THE CARP, *CYPRINUS CARPIO*, AS A FUNCTION OF AMBIENT P_{O_2}. *Comp. Biochem. Physiol. A Comp. Physiol.* 94(2):205-208. 1989. FR 35(1)
[Dep. Fish., Fac. Agric., Kyushu Univ., Hakozaki, Fukuoka 812, Japan]

90-000392 Takeuchi, Toshio; Seok-Joong Kang and Takeshi Watanabe. [EFFECTS OF ENVIRONMENTAL SALINITY ON LIPID CLASSES AND FATTY ACID COMPOSITION IN GILLS OF ATLANTIC SALMON.] *Nippon Suisan Gakkaishi* 55(8):1395-1405. 1989. In Japanese with English summ. FR 35(1)
[Dep. Aquat. Biosci., Tokyo Univ. Fish., Konan, Minato, Tokyo 108, Japan] *Salmo salar.*

90-000393 Tanasomwang, Varin and Kiyokuni Muroga. INTESTINAL MICROFLORA OF ROCKFISH *SEBASTES SCHLEGELI*, TIGER PUFFER *TAKIFUGU RUBRIPES* AND RED GROUPER *EPINEPHELUS AKAARA* AT THEIR LARVAL AND JUVENILE STAGES. *Nippon Suisan Gakkaishi* 55(8):1371-1377. 1989. In English with Japanese summ. FR 35(1)
[Fac. Appl. Biol. Sci., Hiroshima Univ., Higashi-Hiroshima 724, Japan]

90-000394 Thompson, Hilary Winfield. AMINO ACID RESPONSES OF OLFACTORY BULB CELLS IN THE CHANNEL CATFISH. *Ph.D. dissertation, La. State Univ. & Agric. & Mechanical Coll.* 124p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1800. 1989. Order No. DA8917863. FR 35(1)
Ictalurus punctatus.

90-000395 Thorndyke, M. C.; D. Purvis and E. M. Plisetskaya. INSULIN-LIKE IMMUNOREACTIVITY IN THE BRAIN OF TWO HAGFISHES, *EPTATRETUS STOUTI* AND *MYXINE GLUTINOSA*. *Gen. Comp. Endocrinol.* 76(3):371-381. 1989. FR 35(1)
[Dep. Biol., Royal Holloway & Bedford New Coll., London Univ., Egham, Surrey TW20 0EX, England]

90-000396 Tiersch, Terrence R.; Robert W. Chandler; Klaus D. Kallman and Stephen S. Wachtel. ESTIMATION OF NUCLEAR DNA CONTENT BY FLOW CYTOMETRY IN FISHES OF THE GENUS *XIPHOPHORUS*. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(3):465-468. 1989. FR 35(1)
[Ecol. Res. Cent., Dep. Biol., Memphis State Univ., Memphis, TN 38152]

90-000397 Tocher, Douglas R.; Janette Carr and John R. Sargent. POLYUNSATURATED FATTY ACID METABOLISM IN FISH CELLS: DIFFERENTIAL METABOLISM OF (n-3) AND (n-6) SERIES ACIDS BY CULTURED CELLS ORIGINATING FROM A FRESHWATER TELEOST FISH AND FROM A MARINE TELEOST FISH. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(2):367-374. 1989. FR 35(1)
[NERC Unit Aquat. Biochem., School Mol. & Biol. Sci., Univ. Stirling, Stirling FK9 4LA, Scotland] *Oncorhynchus mykiss* and *Scophthalmus maximus.*

90-000398 Tsukuda, Hiroko and Mikio Kihara. EFFECT OF HYPOXIA ON THE ISOLATED HEART ACTIVITY OF THERMALLY ACCLIMATED GOLDFISH, *CARASSIUS AURATUS*. *Comp. Biochem. Physiol. A Comp. Physiol.* 94(1):37-40. 1989. FR 35(1)
[Dep. Biol., Fac. Sci., Osaka City Univ., Sugimoto-3, Sumiyoshi-ku, Osaka 558, Japan]

PHYSIOLOGY (CONTINUED)

90-000399 Turner, M. Randall; Stephanie L. Leggett and Roger H. Lumb. DISTRIBUTION OF OMEGA-3 AND OMEGA-6 FATTY ACIDS IN THE ETHER- AND ESTER-LINKED PHOSPHOGLYCERIDES FROM TISSUES OF THE RAINBOW TROUT, *SALMO GAIRDNERI*. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(3):575-579. 1989. FR 35(1)
[Lumb: Mountain Aquacult. Res. Cent., West. Carolina Univ., Cullowhee, NC 28723]

90-000400 Tytler, Peter and Michael V. Bell. A STUDY OF DIFFUSIONAL PERMEABILITY OF WATER, SODIUM AND CHLORIDE IN YOLK-SAC LARVAE OF COD (*GADUS MORHUA* L.). *J. Exp. Biol.* 147:125-132. 1989. FR 35(1)
[School Mol. & Biol. Sci., Univ. Stirling, Stirling FK9 4LA, Scotland]

90-000401 Ueno, Ryuji; Xiao-Hong Yu and Chong-Sheng Yuan. PURIFICATION AND CHARACTERIZATION OF TWO ACIDIC β-*N*-ACETYLHEXOSAMINIDASE ISOENZYMES FROM CARP BLOOD. *Nippon Suisan Gakkaishi* 55(8):1407-1413. 1989. In English with Japanese summ. FR 35(1)
[Fac. Bioresour., Mie Univ., Tsu, Mie 514, Japan] *Cyprinus carpio.*

90-000402 Underwood, H. THE PINEAL AND MELATONIN: REGULATORS OF CIRCADIAN FUNCTION IN LOWER VERTEBRATES. *Experientia (Basel)* 45(10):914-922. 1989. FR 35(1)
[Dep. Zool., N.C. State Univ., Raleigh 27695]

90-000403 Ushio, Hideki; Shugo Watabe and Kanehisa Hashimoto. PURIFICATION AND CHARACTERIZATION OF CARP SARCOPLASMIC RETICULUM. *Nippon Suisan Gakkaishi* 55(9):1641-1648. 1989. In English with Japanese summ. FR 35(1)
[Watabe: Lab. Mar. Biochem., Fac. Agric., Univ. Tokyo, Bunkyo-ku, Tokyo 113, Japan] *Cyprinus carpio.*

90-000404 Vallarino, M.; D. Tranchand Bunel; C. Delbende; I. Ottonello and H. Vaudry. DISTRIBUTION OF THE PRO-OPIOMELANOCORTIN-DERIVED PEPTIDES, ALPHA-MELANOCYTE-STIMULATING HORMONE (α-MSH), ADRENOCORTICOTROPIC HORMONE (ACTH), AND BETA-ENDORPHIN IN THE BRAIN OF THE DOGFISH *SCYLIORHINUS CANICULA*: AND IMMUNOCYTOCHEMICAL STUDY. *J. Exp. Zool. Suppl.* (2):112-121. 1989. FR 35(1)
[Ist. Anat. Comp., Univ. Genova, 16132 Genova, Italy]

90-000405 Vallarino, M.; A. Fasolo; I. Ottonello; I. Perroteau; M. C. Tonon; F. Vandesande and H. Vaudry. LOCALIZATION OF CORTICOTROPIN-RELEASING HORMONE (CRF)-LIKE IMMUNOREACTIVITY IN THE CENTRAL NERVOUS SYSTEM OF THE ELASMOBRANCH FISH, *SCYLIORHINUS CANICULA*. *Cell Tissue Res.* 258(3):541-546. 1989. FR 35(1)
[Ist. Anat. Comp., Univ. Genova, Viale Benedetto XV, 5, 16132 Genova, Italy]

90-000406 Vallarino, Mauro; Loredana D'Este; Lucia Negri; Irene Ottonello and Tindaro Renda. OCCURRENCE OF BOMBESIN-LIKE IMMUNOREACTIVITY IN THE BRAIN OF THE CARTILAGINOUS FISH, *SCYLIORHINUS CANICULA*. *Cell Tissue Res.* 259(1):177-181. 1990. FR 35(1)
[Ist. Anat. Comp., Univ. Genova, Viale Benedetto XV, 5, I-16132 Genova, Italy]

90-000407 Vecino, E.; R. Covenas; J. R. Alonso; J. Lara and J. Aijon. IMMUNOCYTOCHEMICAL STUDY OF SUBSTANCE P-LIKE CELL BODIES AND FIBRES IN THE BRAIN OF THE RAINBOW TROUT, *SALMO GAIRDNERI*. *J. Anat.* 165:191-200. 1989. FR 35(1)
[Aijon: Dep. Cytol. & Histol., Fac. Biol., Univ. Salamanca, 37008 Salamanca, Spain]

PHYSIOLOGY (CONTINUED)

90-000408 Vig, E.; T. Gabrielak; W. Leyko; J. Nemcsok and B. Matkovics. PURIFICATION AND CHARACTERIZATION OF Cu,Zn-SUPEROXIDE DISMUTASE FROM COMMON CARP LIVER. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(2):395-397. 1989. FR 35(1)
[Matkovics: P.O. Box 533, Szeged H-6701, Hungary] *Cyprinus carpio.*

90-000409 Vorger, P. AN ANALYSIS OF OXYGEN BINDING BY TROUT (*SALMO GAIRDNERI*) RED CELLS. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(2):315-321. 1989. FR 35(1)
[Serv. Physiol. Respiratoire, Cent. Hospitalier & Univ. Poitiers, B.P. 577-86021 Poitiers Cedex, France]

90-000410 Waller, U. RESPIRATION AND LOW OXYGEN TOLERANCE OF TWO FISH SPECIES FROM THE ARABIAN SEA, *CUBICEPS WHITELEGGI* AND *CORYPHAENA HIPPURUS. J. Appl. Ichthyol.* 5(3):141-150. 1989. In English with German and French summ. FR 35(1)
[Inst. Meereskunde Kiel, Abteilung Fischereibiol., Dusternbrooker Weg 20, D-2300 Kiel 1, West Germany]

90-000411 Walsh, Patrick J.; Jennifer J. Parent and Raymond P. Henry. CARBONIC ANHYDRASE SUPPLIES BICARBONATE FOR UREA SYNTHESIS IN TOADFISH (*OPSANUS BETA*) HEPATOCYTES. *Physiol. Zool.* 62(6):1257-1272. 1989. FR 35(1)
[Div. Biol. & Living Resour., Rosenstiel School Mar. & Atmos. Sci., Univ. Miami, 4600 Rickenbacker Causeway, Miami, FL 33149-1098]

90-000412 Walsh, Patrick J. REGULATION OF INTRACELLULAR pH BY TOADFISH (*OPSANUS BETA*) HEPATOCYTES. *J. Exp. Biol.* 147:407-419. 1989. FR 35(1)
[Div. Biol. & Living Resour., Rosenstiel School Mar. & Atmos. Sci., Univ. Miami, 4600 Rickenbacker Causeway, Miami, FL 33149-1098]

90-000413 Walsh, Patrick J. AN *IN VITRO* MODEL OF POST-EXERCISE HEPATIC GLUCONEOGENESIS IN THE GULF TOADFISH *OPSANUS BETA. J. Exp. Biol.* 147:393-406. 1989. FR 35(1)
[Div. Biol. & Living Resour., Rosenstiel School Mar. & Atmos. Sci., Univ. Miami, 4600 Rickenbacker Causeway, Miami, FL 33149-1098]

90-000414 Ware, D. M. and R. W. Tanasichuk. BIOLOGICAL BASIS OF MATURATION AND SPAWNING WAVES IN PACIFIC HERRING (*CLUPEA HARENGUS PALLASI*). *Can. J. Fish. Aquat. Sci.* 46(10):1776-1784. 1989. In English with French summ. FR 35(1)
[Dep. Fish. & Oceans, Biol. Sci. Branch, Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6]

90-000415 Watabe, Shugo; Hideki Ushio; Muneaki Iwamoto; Mohamed Kamal; Hisashi Ioka and Kanehisa Hashimoto. RIGOR-MORTIS PROGRESS OF SARDINE AND MACKEREL IN ASSOCIATION WITH ATP DEGRADATION AND LACTATE ACCUMULATION. *Nippon Suisan Gakkaishi* 55(10):1833-1839. 1989. In English. FR 35(1)
[Lab. Mar. Biochem., Fac. Agric., Univ. Tokyo, Bunkyo-ku, Tokyo 113, Japan] *Sardinops melanosticta* and *Pneumatophorus japonicus japonicus.*

90-000416 Watanabe, Takeshi; Maria S. Izquierdo; Toshio Takeuchi; Shuichi Satoh and Chikara Kitajima. COMPARISON BETWEEN EICOSAPENTAENOIC AND DOCOSAHEXAENOIC ACIDS IN TERMS OF ESSENTIAL FATTY ACID EFFICACY IN LARVAL RED SEABREAM. *Nippon Suisan Gakkaishi* 55(9):1635-1640. 1989. In English with Japanese summ. FR 35(1)
[Dep. Aquat. Biosci., Tokyo Univ. Fish., Konan, Minato, Tokyo 108, Japan] *Pagrus major.*

PHYSIOLOGY (CONTINUED)

90-000417 Whitmore, A. V. and J. K. Bowmaker. SEASONAL VARIATION IN CONE SENSITIVITY AND SHORT-WAVE ABSORBING VISUAL PIGMENTS IN THE RUDD *SCARDINIUS ERYTHROPHTHALMUS*. *J. Comp. Physiol. A Sens. Neural Behav. Physiol.* 166(1):103-115. 1989. FR 35(1)
[Bowmaker: Dep. Visual Sci., Inst. Ophthalmol., Innd St., London WC1H 9QS, England]

90-000418 Wieser, W.; H. Forstner; N. Medgyesy and S. Hinterleitner. TO SWITCH OR NOT TO SWITCH: PARTITIONING OF ENERGY BETWEEN GROWTH AND ACTIVITY IN LARVAL CYPRINIDS (CYPRINIDAE: TELEOSTEI). *Funct. Ecol.* 2(4):499-507. 1988. FR 35(1)
[Zool. Inst. Univ. Innsbruck, Technikerstr. 25, A-6020 Innsbruck, Austria] *Rutilus rutilus* and *Chalcalburnus chalcoides mento*.

90-000419 Williams, E. M. and F. B. Eddy. EFFECT OF NITRITE ON THE EMBRYONIC DEVELOPMENT OF ATLANTIC SALMON (*SALMO SALAR*). *Can. J. Fish. Aquat. Sci.* 46(10):1726-1729. 1989. In English with French summ. FR 35(1)
[Dep. Biol. Sci., Dundee Univ., Dundee DD1 4HN, Scotland]

90-000420 Wolenski, Joseph Samuel. STUDIES ON SPERM INCORPORATION INTO THE EGG OF THE ZEBRAFISH (*BRACHYDANIO RERIO*). *Ph.D. dissertation, Rutgers State Univ. N.J.* 198p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(4):1210. 1989. Order No. DA8914191. FR 35(1)

90-000421 Wright, Patricia A.; Steve F. Perry and Thomas W. Moon. REGULATION OF HEPATIC GLUCONEOGENESIS AND GLYCOGENOLYSIS BY CATECHOLAMINES IN RAINBOW TROUT DURING ENVIRONMENTAL HYPOXIA. *J. Exp. Biol.* 147:169-188. 1989. FR 35(1)
[Lab. Kidney & Electrolyte Metabol., Natl. Inst. Health, Bldg. 10, Rm. 6N307, Bethesda, MD 20892] *Oncorhynchus mykiss*.

90-000422 Wrigley, J. O. L. and R. Ash. AN EVALUATION OF THE ISOLATED, *IN VITRO*, NON-MYOTOMAL MUSCLE PREPARATION FOR THE STUDY OF FACTORS AFFECTING PROTEIN SYNTHESIS IN FISH. *Aquaculture* 79(1-4):75-83. 1989. FR 35(1)
[Ash: School Biomed. Sci., Univ. Bradford, Bradford, W. Yorkshire BD7 1DP, England]

90-000423 Yamashita, S. ; R. E. Evans and Toshiaki J. Hara. SPECIFICITY OF THE GUSTATORY CHEMORECEPTORS FOR CO_2 AND H^+ IN RAINBOW TROUT (*ONCORHYNCHUS MYKISS*). *Can. J. Fish. Aquat. Sci.* 46(10):1730-1734. 1989. In English with French summ. FR 35(1)
[Hara: Dep. Fish. & Oceans, Freshwater Inst., 501 University Cres., Winnipeg, MB, Canada R3T 2N6]

90-000424 Zhu, Yong; Katsumi Aida; Kiyoshi Furukawa and Isao Hanyu. DEVELOPMENT OF SENSITIVITY TO MATURATION-INDUCING STEROIDS AND GONADOTROPINS IN THE OOCYTES OF THE TOBINUMERI-DRAGONET, *REPOMUCENUS BENITEGURI*, CALLIONYMIDAE (TELEOSTEI). *Gen. Comp. Endocrinol.* 76(2):250-260. 1989. FR 35(1)
[Dep. Fish., Fac. Agric., Univ. Tokyo, Bunkyo-ku, Tokyo 113, Japan]

90-000425 Zhukinsky, V. N. and V. P. Bilko. [DEPENDENCE OF THE VITALITY OF CARP EMBRYOES AND LARVAE ON pH OF THE OVULATED SPAWN.] *Gidrobiol. Zh.* 25(3):39-43. 1989. In Russian with English summ. FR 35(1)

90-000426 Zimmermann, Herbert and Manfred Vogt. MEMBRANE PROTEINS OF SYNAPTIC VESICLES AND CYTOSKELETAL SPECIALIZATIONS AT THE NODE OF RANVIER IN ELECTRIC RAY AND RAT. *Cell Tissue Res.* 258(3):617-629. 1989. FR 35(1)

PHYSIOLOGY (CONTINUED)

90-000426 CONTINUED
[AK Neurochem., Zool. Inst. J.W. Goethe-Univ., Siesmayerstr. 70, D-6000 Frankfurt am Main 11, West Germany] *Torpedo marmorata.*

90-000427 Zubova, S. E. INFLUENCE OF X-RAY IRRADIATION ON THE SEX GLANDS OF YOUNG STURGEON WITH THE PITUITARY REMOVED. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):162-165. 1988. FR 35(1)
Acipenser ruthenus, A. baeri, and *Huso huso.*

GENETICS, VARIATION STUDIES AND HYBRIDIZATION

90-000428 Arefjev, V. A. and G. I. Karnauchov. SPECIES-SPECIFICITY OF ELECTROPHORETIC PATTERNS OF HAEMOGLOBIN AND UNIFORMITY OF KARYOTYPES IN FISHES, GENUS *ABRAMIS* (PISCES: CYPRINIDAE). *Biochem. Syst. Ecol.* 17(6):479-488. 1989. FR 35(1)
[Lab. Maricult., Inst. Mar. Fish. & Oceanogr., Verh. Krasnoselskaya 17a, Moscow 107140, USSR] *A. brama, A. ballerus,* and *A. sapa.*

90-000429 Arefjev, V. A. KARYOTYPE VARIABILITY IN SUCCESSIVE GENERATIONS AFTER HYBRIDIZATION BETWEEN THE GREAT STURGEON, *HUSO HUSO* (L.), AND THE STERLET, *ACIPENSER RUTHENUS* L. *J. Fish Biol.* 35(6):819-828. 1989. FR 35(1)
[Lab. Maricult., All-Union Inst. Mar. Fish. & Oceanogr. (VNIRO), Verh. Krasnoselskaya 17a, Moscow 107140, USSR]

90-000430 Bentzen, Paul. MITOCHONDRIAL DNA POLYMORPHISM IN AMERICAN SHAD (*ALOSA SAPIDISSIMA*) AND ITS IMPLICATIONS FOR POPULATION STRUCTURE. *Ph.D. dissertation, McGill Univ. (Canada)* 1989. From Diss. Abstr. Int. B Sci. Eng. 50(4):1231. 1989. FR 35(1)

90-000431 Bernatchez, L.; J. J. Dodson and S. Boivin. POPULATION BOTTLENECKS: INFLUENCE ON MITOCHONDRIAL DNA DIVERSITY AND ITS EFFECT IN COREGONINE STOCK DISCRIMINATION. *J. Fish Biol.* 35(Suppl. A):233-244. 1989. FR 35(1)
[Dep. Biol., Univ. Laval, Ste-Foy, PQ, Canada G1K 7P4] *Coregonus clupeaformis* and *C. lavaretus* in Canada.

90-000432 Bornbusch, Alan Henry. PHYLOGENETIC STUDIES OF THE SILURID CATFISHES (TELEOSTEI: SILURIFORMES). *Ph.D. dissertation, Duke Univ.* 545p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(6):2303-2304. 1989. Order No. DA8919211. FR 35(1)
Silurus spp., *Ompok* spp., *Kryptopterus* spp., and *Wallago* spp. in Europe.

90-000433 Brule, T. ANALYSIS OF THE ENZYME POLYMORPHISM IN A PLAICE, *PLEURONECTES PLATESSA* L., POPULATION FROM THE NORTH-WEST COAST OF BRITTANY, FRANCE. *J. Fish Biol.* 35(5):607-620. 1989. FR 35(1)
[Cinvestav-IPN-Unidad Merida, A.P. 73 Cordemex, Merida, Yucatan 97310, Mexico]

90-000434 Brzuska, Elzbieta. INVESTIGATIONS ON THE CHROMOSOMES OF THE CARP (*CYPRINUS CARPIO* L.). *Acta Hydrobiol.* 30(1/2):253-258. 1988. In English with Polish summ. FR 35(1)
[Polish Acad. Sci., Inst. Freshwater Biol., ul. Slawkowska 17, 31-016 Krakow, Poland]

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

90-000435 Cattin, P. M. and J. T. Ferreira. A RAPID, NON-SACRIFICIAL CHROMOSOME PREPARATION TECHNIQUE FOR FRESHWATER TELEOSTS. *S. Afr. J. Zool.* 24(1):76-78. 1989. In English with Afrikaans summ. FR 35(1)
[Dep. Zool., Rand Afrikaans Univ., P.O. Box 524, Johannesburg 2000, South Africa] *Tilapia mossambica* and *Ctenopharyngodon idella.*

90-000436 Chernov, V. M. and S. N. Borkhsenius. [DETERMINATION OF PHYLOGENIC RELATIONS BETWEEN SPECIES OF THE GENUS *ONCORHYNCHUS* BY THE METHOD OF MOLECULAR HYBRIDIZATION OF DNA.] *Mar. Biol. (Vladivostok)* 1989(2):23-29. 1989. In Russian with English summ. FR 35(1)
[Dep. Cell Cult., Inst. Cytol., Acad. Sci. USSR, Leningrad 194064, USSR]

90-000437 Clark, Dennis E. MORPHOLOGICAL AND ECOLOGICAL RELATIONSHIPS OF *ETHEOSTOMA CAERULEUM* AND *ETHEOSTOMA SPECTABILE* IN WEST CENTRAL INDIANA. *Ph.D. dissertation, Indiana State Univ.* 171p. 1973. FR 35(1)

90-000438 Clemmesen, C. M. RNA/DNA RATIOS OF LABORATORY-REARED AND WILD HERRING LARVAE DETERMINED WITH A HIGHLY SENSITIVE FLUORESCENCE METHOD. *J. Fish Biol.* 35(Suppl. A):331-333. 1989. FR 35(1)
[Inst. Meereskunde, Univ. Kiel, Dunsternbrooker Weg 20, 2300 Kiel, West Germany] *Clupea harengus.*

90-000439 Crozier, W. W. and I. J. J. Moffett. AMOUNT AND DISTRIBUTION OF BIOCHEMICAL-GENETIC VARIATION AMONG WILD POPULATIONS AND A HATCHERY STOCK OF ATLANTIC SALMON, *SALMO SALAR* L., FROM NORTH-EAST IRELAND. *J. Fish Biol.* 35(5):665-677. 1989. FR 35(1)
[Dep. Agric. Northern Ireland, Fish. Res. Lab., Coleraine, Co. Londonderry, Ireland]

90-000440 Crozier, W. W. and I. J. J. Moffett. EXPERIMENTAL PRODUCTION OF TRIPLOID BROWN TROUT, *SALMO TRUTTA* L., USING HEAT SHOCK. *Aquacult. Fish. Manage.* 20(4):343-353. 1989. FR 35(1)
[Fish. Res. Lab., Dep. Agric. Northern Ireland, 38 Castleroe Rd., Coleraine, County Londonderry, Northern Ireland]

90-000441 Danzmann, R. G.; M. M. Ferguson and F. W. Allendorf. GENETIC VARIABILITY AND COMPONENTS OF FITNESS IN HATCHERY STRAINS OF RAINBOW TROUT. *J. Fish Biol.* 35(Suppl. A):313-319. 1989. FR 35(1)
[Great Lakes Inst., Univ. Windsor, Windsor, ON, Canada N9B 3P4] *Oncorhynchus mykiss.*

90-000442 Daud, Siti K.; I. Patimah and Akihiro Kijima. GENETIC VARIABILITY AND RELATIONSHIPS AMONG FOUR SPECIES OF FRESHWATER CATFISH. *Malay. Appl. Biol.* 18(1):23-31. 1989. In English with Malay summ. FR 35(1)
[Fac. Fish. & Mar. Sci., Univ. Pertanian Malaysia, 43400 UPM, Serdang, Selangor Darul Ehsan, Malaysia] *Mystus nemurus, Clarias batrachus, C. macrocephalus,* and *Prophagorus cataractus* in Malaysia.

90-000443 Duggins, Charles F., Jr.; Kenneth G. Relyea and Alvan A. Karlin. BIOCHEMICAL SYSTEMATICS IN SOUTHEASTERN POPULATIONS OF *FUNDULUS HETEROCLITUS* AND *FUNDULUS GRANDIS*. *Northeast Gulf Sci.* 10(2):97-102. 1989. FR 35(1)
[Dep. Biol., Univ. S.C., Columbia 29208] *F. g. grandis* and *F. g. saguanus.*

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

90-000444 Ferreiro, Carmen; Juan Fernando Medrano and Graham A. E. Gall. GENOME ANALYSIS OF RAINBOW TROUT AND STURGEON WITH RESTRICTION ENZYMES AND HYBRIDIZATION WITH A ZFY GENE DERIVED PROBE TO IDENTIFY SEX. *Aquaculture* 81(3/4):245-251. 1989. FR 35(1)
[Medrano: Dep. Anim. Sci., Univ. Calif., Davis 95616] *Oncorhynchus mykiss* and *Acipenser transmontanus.*

90-000445 Glubokovsky, M. K.; L. A. Zhivotovsky; R. M. Viktorovsky; A. M. Bronevsky; K. I. Afanasyev; V. V. Efremov; L. N. Ermolenko; B. A. Kalabushkin; V. G. Kovalyev; A. N. Makoedov; T. V. Malinina; S. P. Pustovoyt and G. A. Rubtzova. [POPULATION STRUCTURE OF PINK SALMON.] *Genetika* 25(7):1275-1285. 1989. FR 35(1)
[Inst. Mar. Biol., Acad. Sci. USSR, Far East Div., Vladivostok, USSR] *Oncorhynchus gorbuscha.*

90-000446 Hamilton, K. E.; A. Ferguson; J. B. Taggart; T. Tomasson; A. Walker and E. Fahy. POST-GLACIAL COLONIZATION OF BROWN TROUT, *SALMO TRUTTA* L.: *Ldh-5* AS A PHYLOGEOGRAPHIC MARKER LOCUS. *J. Fish Biol.* 35(5):651-664. 1989. FR 35(1)
[Ferguson: Dep. Biol., Queen's Univ., Belfast BT7 1NN, Northern Ireland]

90-000447 Hovey, S. J.; D. P. F. King; D. Thompson and A. Scott. MITOCHONDRIAL DNA AND ALLOZYME ANALYSIS OF ATLANTIC SALMON, *SALMO SALAR* L., IN ENGLAND AND WALES. *J. Fish Biol.* 35(Suppl. A):253-260. 1989. FR 35(1)
[Clore Lab. Biol. Sci., Univ. Buckingham, Buckingham MK18 1EG, England]

90-000448 Hynes, R. A.; E. J. Duke and P. Joyce. MITOCHONDRIAL DNA AS A GENETIC MARKER FOR BROWN TROUT, *SALMO TRUTTA* L., POPULATIONS. *J. Fish Biol.* 35(5):687-701. 1989. FR 35(1)
[Zool. Dep., Univ. Coll. Dublin, Belfield, Dublin 4, Ireland]

90-000449 Jamieson, A. and A. J. Birley. THE DEMOGRAPHY OF A HAEMOGLOBIN POLYMORPHISM IN THE ATLANTIC COD, *GADUS MORHUA* L. *J. Fish Biol.* 35(Suppl. A):193-204. 1989. FR 35(1)
[Dep. Genet., Univ. Birmingham, P.O. Box 363, Birmingham B15 2TT, England]

90-000450 Jorstad, K. E. and G. Naevdal. GENETIC VARIATION AND POPULATION STRUCTURE OF COD, *GADUS MORHUA* L., IN SOME FJORDS IN NORTHERN NORWAY. *J. Fish Biol.* 35(Suppl. A):245-252. 1989. FR 35(1)
[Inst. Mar. Res., P.O. Box 1870, Nordnes, N-5024 Bergen, Norway]

90-000451 Kucherov, G. A.; D. K. Obakhov; S. L. Nikonorov and L. V. Vitvitskaya. GENETIC-NEUROBIOLOGICAL ANALYSIS OF HATCHERY-REARED JUVENILE ATLANTIC SALMON, *SALMO SALAR*, OF DIFFERENT SIZES. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):115-123. 1988. FR 35(1)
[Cent. Production, Acclimatization Dir. Glavrybvod, Minist. Fish. USSR, TsPAU, Leningrad State Univ., Leningrad, USSR]

90-000452 Lee, Eung-Ho; Bu-Gil Chung; Jin-Soo Kim; Chang-Bum Ahn and Kwang-Soo Oh. [STUDIES ON THE FOOD COMPONENTS OF TRIPLOID CARP MUSCLE. 1. THE TASTE COMPOUNDS OF TRIPLOID CARP MUSCLE.] *Bull. Korean Fish. Soc.* 22(3):154-160. 1989. In Korean with English summ. FR 35(1)
[Dep. Food Sci. & Technol., Natl. Fish. Univ. Pusan, Pusan 608-737, South Korea] *Cyprinus carpio.*

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

90-000453 Lee, Eung-Ho; Bu-Gil Chung; Jin-Soo Kim; Chang-Bum Ahn; Dong-Sik Joo and Kwang-Soo Oh. [STUDIES ON THE FOOD COMPONENTS OF TRIPLOID CARP MUSCLE. 2. LIPID COMPONENTS OF TRIPLOID CARP MUSCLE.] *Bull. Korean Fish. Soc.* 22(3):161-168. 1989. In Korean with English summ. FR 35(1)
[Dep. Food Sci. & Technol., Natl. Fish. Univ. Pusan, Pusan 608-737, South Korea] *Cyprinus carpio.*

90-000454 Lester, L. J.; K. S. Lawson; T. A. Abella and M. S. Palada. ESTIMATED HERITABILITY OF SEX RATIO AND SEXUAL DIMORPHISM IN TILAPIA. *Aquacult. Fish. Manage.* 20(4):369-380. 1989. FR 35(1)
[Aquacult. Genet. Lab., Univ. Houston - Clear Lake, 2700 Bay Area Blvd., Houston, TX 77058] *Tilapia nilotica.*

90-000455 Levy, J. A. and M. B. Conceicao. BIOCHEMICAL EVIDENCES FOR TWO SIBLING SPECIES OF GENUS *MYLIOBATIS* (CHONDRICHTHYES: MYLIOBATIDAE) IN SOUTH BRAZIL. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(4):687-690. 1989. FR 35(1)
[Lab. Bioquim. Mar., Dep. Quimica, Fundacao Univ. Rio Grande, CP 474-96.200, Rio Grande, RS, Brazil] *M. freminvilli, M. goodei,* and *M. aquila.*

90-000456 Lloyd, Marilyn Ann. CYTOLOGICAL AND MOLECULAR CHARACTERIZATION OF RAINBOW TROUT CHROMOSOMES. *Ph.D. dissertation, Wash. State Univ.* 115p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(4):1234-1235. 1989. Order No. DA8915909. FR 35(1)
Oncorhynchus mykiss.

90-000457 Maceina, Michael J. and Brian R. Murphy. DIFFERENCES IN OTOLITH MORPHOLOGY AMONG THE TWO SUBSPECIES OF LARGEMOUTH BASS AND THEIR F_1 HYBRID. *Trans. Am. Fish. Soc.* 118(5):573-575. 1989. FR 35(1)
[S. Fla. Water Manage. Dist., P.O. Box 24680, West Palm Beach 33416] *Micropterus salmoides floridanus* and *M. s. salmoides.*

90-000458 Mednikov, B. M.; V. V. Volobuev; V. A. Gorshkov; V. A. Maksimov; S. P. Savoskul and Yu. P. Tsarev. GENETIC STRUCTURE OF SPAWNING POPULATIONS OF CHUM SALMON, *ONCORHYNCHUS KETA,* OF THE TAUY RIVER BASIN (BASED ON DNA HYBRIDIZATION). *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):99-105. 1988. FR 35(1)
[Biol. Fac., Moscow State Univ., Moscow, USSR]

90-000459 Moran, P.; A. M. Pendas; E. Garcia-Vazquez and A. R. Linde. CHROMOSOMAL AND MORPHOLOGICAL ANALYSIS OF TWO POPULATIONS OF *SALMO TRUTTA* SBP. *FARIO* EMPLOYED IN REPOPULATION. *J. Fish Biol.* 35(6):839-843. 1989. FR 35(1)
[Garcia-Vazquez: Univ. Oviedo, Dep. Biol. Functional (Area Genet.), Fac. Med., C/J. Claveria, s/n, 33006-Oviedo, Spain]

90-000460 Nedreaas, Kjell and Gunnar Naevdal. STUDIES OF NORTHEAST ATLANTIC SPECIES OF REDFISH (GENUS *SEBASTES*) BY PROTEIN POLYMORPHISM. *J. Cons. Cons. Int. Explor. Mer* 46(1):76-93. 1989. FR 35(1)
[Inst. Mar. Res., P.O. Box 1870, Nordnes, N-5024 Bergen, Norway] *S. marinus, S. mentella,* and *S. viviparus.*

90-000461 Okamoto, Hiroaki. A GENETIC COMPARISON OF SYMPATRIC POPULATIONS OF SAND LANCE (GENUS *AMMODYTES*) FROM THE REGION EAST OF CAPE SOYA, JAPAN. *Can. J. Fish. Aquat. Sci.* 46(11):1945-1951. 1989. In English with French

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

90-000461 CONTINUED summ. FR 35(1)
[Div. Mar. Ecol., Res. Inst. N. Pac. Fish., Hokkaido Univ., 3-1-1 Minato-cho, Hakodate 041, Japan]

90-000462 Palva, Tuula K.; Heikki Lehvaslaiho and E. Tapio Palva. IDENTIFICATION OF ANADROMOUS AND NON-ANADROMOUS SALMON STOCKS IN FINLAND BY MITOCHONDRIAL DNA ANALYSIS. *Aquaculture* 81(3/4):237-244. 1989. FR 35(1)
[Dep. Mol. Genet., Swedish Univ. Agric. Sci., Box 7003, S-750 07 Uppsala, Sweden] *Salmo salar.*

90-000463 Patimah, Ismail; S. K. Daud and Akihiro Kijima. GENETIC CONTROL OF ISOZYMES IN THE FOUR CATFISH SPECIES. *Malay. Appl. Biol.* 18(1):33-37. 1989. In English with Malay summ. FR 35(1)
[Fac. Fish. & Mar. Sci., Univ. Pertanian Malaysia, 43400 UPM, Serdang, Selangor Darul Ehsan, Malaysia] *Clarias batrachus, C. macrocephalus, Mystus nemurus,* and *Prophagorus cataractus* in Malaysia.

90-000464 Prodohl, P. A. and J. A. Levy. GENETIC STUDY OF ATHERINIDAE FISHES OF MANGUEIRA LAGOON (RS-BRAZIL). *Comp. Biochem. Physiol. B Comp. Biochem.* 94(3):423-426. 1989. FR 35(1)
[Lab. Bioquim. Marinha, Dep. Quimica, Fundacao Univ. Rio Grande, C.P. 474-96200, Rio Grande, RS, Brazil] *Austromenidia bonariensis, Odontesthes humensis,* and *Yaci retropinis.*

90-000465 Pullin, R. S. V., editor. TILAPIA GENETIC RESOURCES FOR AQUACULTURE. PROCEEDINGS OF THE WORKSHOP ON TILAPIA GENETIC RESOURCES FOR AQUACULTURE, 23-24 MARCH 1987, BANGKOK, THAILAND. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* 16:108p. 1988. FR 35(1)
[ICLARM, MC P.O. Box 1501, Makati, Metro Manila, Philippines]

90-000466 Renno, Jean-Francois; Rene Guyomard; Thierry Boujard and Christine Bastide. EVIDENCE FOR GENETIC ISOLATION AMONG FOUR MORPHOLOGICAL SPECIES OF *LEPORINUS* (ANOSTOMIDAE, PISCES) IN FRENCH GUIANA. *Aquat. Living Resour.* 2(3):127-134. 1989. In English with French summ. FR 35(1)
[USTL/INRA Lab. Hydrobiol., BP 709, 97387 Kourou, French Guiana] *L. friderici, L. granti, L. lebaili,* and *L. steyermarki.*

90-000467 Rogers, James S. and James M. Grady. EVIDENCE FOR TANDEM DUPLICATION OF A GLUCOSEPHOSPHATE ISOMERASE LOCUS IN *SCIAENOPS OCELLATUS. Biochem. Syst. Ecol.* 17(6):489-491. 1989. FR 35(1)
[Dep. Biol. Sci., Univ. New Orleans, New Orleans, LA 70148]

90-000468 Sakaizumi, Mitsuru. GENETIC DIVERSITY AND EVOLUTION IN WILD POPULATIONS OF THE MEDAKA *ORYZIAS LATIPES* (PISCES: ORYZIATIDAE). *In: Modern Aspects of Species. Kunio Iwatsuki, Peter H. Raven and Walter J. Book, editors.* p. 161-179. 1986. FR 35(1)
[Tokyo Metropolitan Inst. Med. Sci., 3-18-22 Honkomagome, Bunkyo-ku, Tokyo 113, Japan]

90-000469 Skulason, Skuli; David L. G. Noakes and Sigurdur S. Snorrason. ONTOGENY OF TROPHIC MORPHOLOGY IN FOUR SYMPATRIC MORPHS OF ARCTIC CHARR *SALVELINUS ALPINUS* IN THINGVALLAVATN, ICELAND. *Biol. J. Linn. Soc.* 38(3):281-301. 1989. FR 35(1)
[Inst. Biol., Univ. Iceland, Grensasvegur 12, 108 Reykjavik, Iceland]

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

90-000470 Snyder, John A.; G. C. Garman and R. W. Chapman. THE USE OF MITOCHONDRIAL DNA ANALYSIS TO EVALUATE GENETIC DIFFERENCES IN SMALLMOUTH BASS (*MICROPTERUS DOLOMIEUI*) FROM THE JAMES RIVER, VIRGINIA. *Va. J. Sci.* 40(2):80. 1989. Abstract only. FR 35(1)
[Dep. Biol., Va. Commonwealth Univ., Richmond 23284]

90-000471 Stingo, Vincenzo; Lucia Rocco and Raffaella Improta. CHROMOSOME MARKERS AND KARYOLOGY OF SELACHIANS. *J. Exp. Zool. Suppl.* (2):175-185. 1989. FR 35(1)
[Dip. Biol. Evol. & Comp., Via Mezzocannone 8, 80134 Naples, Italy] *Torpedo ocellata, T. marmorata,* and *Scyliorhinus stellaris.*

90-000472 Tave, Douglas. PLEIOTROPY. *Aquacult. Mag.* 15(6):60-62. 1989. FR 35(1)
[Dep. Agric., Univ. Arkansas, Pine Bluff 71601] *Tilapia aurea* and *T. nilotica.*

90-000473 Tave, Douglas. CHROMOSOMAL MANIPULATION. *Aquacult. Mag.* 16(1):62-65. 1990. FR 35(1)
[Dep. Agric., Univ. Arkansas, Pine Bluff 71601]

90-000474 Thomas, William Kelley. THE EVOLUTION OF SALMONID MITOCHONDRIAL DNA. *Ph.D. dissertation, Simon Fraser Univ. (Canada)* 1988. From Diss. Abstr. Int. B Sci. Eng. 50(4):1238. 1989. FR 35(1)

90-000475 Tota, Bruno and William C. Hamlett. EPILOGUE: EVOLUTIONARY AND CONTEMPORARY BIOLOGY OF ELASMOBRANCHS. *J. Exp. Zool. Suppl.* (2):193-196. 1989. FR 35(1)
[Dip. Biol. Cell., Univ. Calabria, I-87030 Cosenza, Italy]

90-000476 Travis, Joseph; James A. Farr; Michael McManus and Joel C. Trexler. ENVIRONMENTAL EFFECTS ON ADULT GROWTH PATTERNS IN THE MALE SAILFIN MOLLY, *POECILIA LATIPINNA* (POECILIIDAE). *Environ. Biol. Fishes* 26(2):119-127. 1989. FR 35(1)
[Dep. Biol. Sci., Fla. State Univ., Tallahassee 32306-2043]

90-000477 Utter, F.; G. Milner; G. Stahl and D. Teel. GENETIC POPULATION STRUCTURE OF CHINOOK SALMON, *ONCORHYNCHUS TSHAWYTSCHA,* IN THE PACIFIC NORTHWEST. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 87(2):239-264. 1989. FR 35(1)
[Coastal Zone & Estuarine Studies Div., Northwest & Alaska Fish. Cent., NMFS, NOAA, 2725 Montlake Blvd. E., Seattle, WA 98112]

90-000478 Van Voorhees, David Alan. SEXUAL SELECTION AND THE EVOLUTION OF SEX-DIFFERENCES IN AGE AND SIZE AT MATURITY IN THE PLATYFISH, *XIPHOPHORUS MACULATUS. Ph.D. dissertation, State Univ. N.Y. (Stony Brook)* 195p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1807-1808. 1989. Order No. DA8917270. FR 35(1)

90-000479 Verspoor, E. and W. C. Jordan. GENETIC VARIATION AT THE *Me-2* LOCUS IN THE ATLANTIC SALMON WITHIN AND BETWEEN RIVERS: EVIDENCE FOR ITS SELECTIVE MAINTENANCE. *J. Fish Biol.* 35(Suppl. A):205-213. 1989. FR 35(1)
[Dep. Agric. & Fish. Scotland, Mar. Lab., P.O. Box 101, Aberdeen AB9 8DB, Scotland] *Salmo salar.*

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

90-000480 Wang Ruifang; Shi Liming and He Weishun. [THE KARYOTYPE OF *CARASSIUS AURATUS* FROM ER HAI LAKE.] *Zool. Res.* 10(2):169-170. 1989. In Chinese. FR 35(1)
[Kunming Inst. Zool., Acad. Sinica, Kunming, China]

90-000481 Ward, Robert D.; Neil Billington and Paul D. N. Hebert. COMPARISON OF ALLOZYME AND MITOCHONDRIAL DNA VARIATION IN POPULATIONS OF WALLEYE, *STIZOSTEDION VITREUM*. *Can. J. Fish. Aquat. Sci.* 46(12):2074-2084. 1989. In English with French summ. FR 35(1)
[Dep. Human Sci., Univ. Technol., Loughborough, Leicestershire LE11 3TU, England]

90-000482 Yan Ju; Liu Shihus; Zhang Xiyuan and Zhang Muxian. [THE APPLICATION OF CELL SYNCHRONIZATION TO CHROMOSOME BANDING OF FISH AND THE TENTATIVE KARYOTYPE ANALYSIS OF *CTENOPHARYNGODON IDELLUS*.] *Zool. Res.* 10(2):123-128. 1989. In Chinese with English summ. FR 35(1)
[Biol. Dep., Wuhan Univ., Wuhan, China]

90-000483 Youngson, A. F.; S. A. M. Martin; W. C. Jordan and E. Verspoor. GENETIC PROTEIN VARIATION IN FARMED ATLANTIC SALMON IN SCOTLAND: COMPARISON OF FARMED STRAINS WITH THEIR WILD SOURCE POPULATIONS. *Scott. Fish. Res. Rep.* No. 42. 12p. 1989. Available from Dep. Agric. & Fish. Scotland, Mar. Lab., P.O Box 101, Victoria Rd., Torry, Aberdeen AB9 8DB, Scotland. FR 35(1)
Salmo salar.

90-000484 Zhivotovsky, L. A.; M. K. Glubokovsky; R. M. Victorovsky; A. M. Bronevsky; K. I. Afanasyev; V. V. Efremov; L. N. Ermolenko; B. A. Kalabushkin; V. G. Kovalyev; A. N. Makoedov; T. V. Malinina; S. P. Pustovoyt and G. A. Rubtzova. [GENETIC DIFFERENTIATION IN PINK SALMON.] *Genetika* 25(7):1261-1274. 1989. In Russian with English summ. FR 35(1)
[N.I. Vavilov Inst. Gen. Genet., Acad. Sci. USSR, Moscow 117809, USSR] *Oncorhynchus gorbuscha*.

90-000485 Zimmerer, Edmund J. and Klaus D. Kallman. GENETIC BASIS FOR ALTERNATIVE REPRODUCTIVE TACTICS IN THE PYGMY SWORDTAIL, *XIPHOPHORUS NIGRENSIS*. *Evolution* 43(6):1298-1307. 1989. FR 35(1)
[Dep. Biol. Sci., Murray State Univ., Murray, KY 42071]

BEHAVIOR

90-000486 Barrett, Jeffrey Charles. THE EFFECTS OF COMPETITION AND RESOURCE AVAILABILITY ON THE BEHAVIOR, MICROHABITAT USE AND DIET OF THE MOTTLED SCULPIN (*COTTUS BAIRDI*). *Ph.D. dissertation, Univ. Ga.* 132p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(6):2253. 1989. Order No. DA8919269. FR 35(1)

90-000487 Beall, E.; M. Heland and C. Marty. INTERSPECIFIC RELATIONSHIPS BETWEEN EMERGING ATLANTIC SALMON, *SALMO SALAR*, AND COHO SALMON, *ONCORHYNCHUS KISUTCH*, JUVENILES. *J. Fish Biol.* 35(Suppl. A):285-293. 1989. FR 35(1)
[Ecol. Poissons, INRA, Stn. Hydrobiol., BP 3, 64310 Saint-Pee-sur-Nivelle, France]

90-000488 Billheimer, L. E. and B. C. Coull. BIOTURBATION AND RECOLONIZATION OF MEIOBENTHOS IN JUVENILE SPOT (PISCES) FEEDING PITS. *Estuarine Coastal Shelf Sci.* 27(3):335-340. 1988. From Ecol. Abstr.

BEHAVIOR (CONTINUED)

90-000488 CONTINUED 89(7):89L/06883. 1989. FR 35(1)
Leiostomus xanthurus.

90-000489 Breitburg, Denise L. DEMERSAL SCHOOLING PRIOR TO SETTLEMENT BY LARVAE OF THE NAKED GOBY. *Environ. Biol. Fishes* 26(2):97-103. 1989. FR 35(1)
[Acad. Nat. Sci., Benedict Estuarine Res. Lab., Benedict, MD 20612] *Gobiosoma bosci* in Chesapeake Bay.

90-000490 Cooper, Scott D. THE RESPONSES OF AQUATIC INSECTS AND TADPOLES TO TROUT. *Verh. Int. Ver. Limnol.* 23(3):1698-1703. 1988. FR 35(1)
[Dep. Biol. Sci., Univ. Calif., Santa Barbara 93117] *Oncorhynchus mykiss* in California.

90-000491 Cowx, I. G. INTERACTION BETWEEN THE ROACH, *RUTILUS RUTILUS*, AND DACE, *LEUCISCUS LEUCISCUS*, POPULATIONS IN A RIVER CATCHMENT IN SOUTH-WEST ENGLAND. *J. Fish Biol.* 35(Suppl. A):279-284. 1989. FR 35(1)
[Humberside Int. Fish. Inst., Univ. Hull, Hull HU6 7RX, England]

90-000492 Cui, Y. and R. J. Wootton. GROUPING FAILS TO AFFECT THE GROWTH AND ENERGY BUDGET OF A CYPRINID, *PHOXINUS PHOXINUS* (L.). *J. Fish Biol.* 35(6):795-798. 1989. FR 35(1)
[Wootton: Dep. Zool., Univ. Coll. Wales, Aberystwyth, Dyfed, Wales]

90-000493 Donaldson, Terry J. FACULTATIVE MONOGAMY IN OBLIGATE CORAL-DWELLING HAWKFISHES (CIRRHITIDAE). *Environ. Biol. Fishes* 26(4):295-302. 1989. FR 35(1)
[Div. Fish & Wildl., Commonwealth Northern Marianas, Saipan, MP 96950] *Oxycirrhites typus* and *Neocirrhites armatus.*

90-000494 Farquhar, Bobby W. and Steve Gutreuter. DISTRIBUTION AND MIGRATION OF ADULT STRIPED BASS IN LAKE WHITNEY, TEXAS. *Trans. Am. Fish. Soc.* 118(5):523-532. 1989. FR 35(1)
[Parks & Wildl. Dep., 6200 Hatchery Rd., Fort Worth, TX 76114] *Morone saxatilis.*

90-000495 Gartner, John V., Jr., and John A. Musick. FEEDING HABITS OF THE DEEP-SEA FISH, *SCOPELOGADUS BEANII* (PISCES: MELAMPHAIDAE), IN THE WESTERN NORTH ATLANTIC. *Deep-Sea Res. Part A Oceanogr. Res. Pap.* 36(10):1457-1469. 1989. FR 35(1)
[Mar. Res. Inst., Dep. Nat. Resour., 100 8th Ave. S.E., St. Petersburg, FL 33701]

90-000496 Grant, James W. A.; David L. G. Noakes and Krista M. Jonas. SPATIAL DISTRIBUTION OF DEFENCE AND FORAGING IN YOUNG-OF-THE-YEAR BROOK CHARR, *SALVELINUS FONTINALIS*. *J. Anim. Ecol.* 58(3):773-784. 1989. FR 35(1)
[Dep. Biol., Concordia Univ., 1455 Ouest Blvd. Maisonneuve, Montreal, PQ, Canada H3G 1M8]

90-000497 Greenfield, David W. and Teresa A. Greenfield. HABITAT AND RESOURCE PARTITIONING BETWEEN TWO SPECIES OF *ACANTHEMBLEMARIA* (PISCES: CHAENOPSIDAE), WITH COMMENTS ON THE CHAOS HYPOTHESIS. *Smithsonian Contrib.*

BEHAVIOR (CONTINUED)

90-000497 CONTINUED *Mar. Sci.* No. 12. p. 499-507. 1982. FR 35(1)
[Dep. Biol., North. Ill. Univ., DeKalb 60115] *A. spinosa* and *A. greenfieldi* in Belize.

90-000498 Grunert, H. and W. Mrowka. [DAILY SWIMMING ACTIVITIES AND THE INFLUENCE OF DIFFERENT STRUCTURING ON THE TERRITORIAL CONTROL OF *PSEUDOCRENILABRUS MULTICOLOR*, CICHLIDAE.] *Verh. Ges. Oekol.* No. 16. p. 487-490. 1986-1987. In German with English summ. From Ecol. Abstr. 89(6):89L/05928. 1989. FR 35(1)

90-000499 Hartney, Kristine Behrents. THE FORAGING ECOLOGY OF TWO SYMPATRIC GOBIID FISHES: IMPORTANCE OF BEHAVIOR IN PREY TYPE SELECTION. *Environ. Biol. Fishes* 26(2):105-118. 1989. FR 35(1)
[Dep. Biol. Sci., Calif. State Univ., Fullerton 92634] *Lythrypnus dalli* and *L. zebra.*

90-000500 Hasegawa, Eiichi and Hiroshi Kobayashi. [ESTIMATE OF THE TRACE OF SWIMMING BEHAVIOR OF FISH AROUND UNDERWATER LAMPS.] *Nippon Suisan Gakkaishi* 55(10):1707-1714. 1989. In Japanese with English summ. FR 35(1)
[Fac. Bioresour., Mie Univ., Tsu, Mie 514, Japan] *Pneumatophorus japonicus.*

90-000501 Hatch, Jay T. ONTOGENETIC SHIFTS IN FEEDING HABITS OF MIXED COHORT SCHOOLS OF LARVAL GOLDEN SHINERS. *Verh. Int. Ver. Limnol.* 23(3):1704-1709. 1988. FR 35(1)
[General Coll., Univ. Minn., 216 Pillsbury Dr., Minneapolis 55455] *Notemigonus crysoleucas.*

90-000502 Hill, Jennifer. THE ENERGETIC SIGNIFICANCE OF MICROHABITAT USE IN TWO STREAM FISHES. *Ph.D. dissertation, Univ. Ga.* 135p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(6):2228. 1989. Order No. DA8919292. FR 35(1)
Oncorhynchus mykiss and *Clinostomus funduloides* in North Carolina.

90-000503 Horn, Michael H. BIOLOGY OF MARINE HERBIVOROUS FISHES. *Oceanogr. Mar. Biol. Annu. Rev.* 27:167-272. 1989. FR 35(1)
[Dep. Biol. Sci., Calif. State Univ., Fullerton 92634]

90-000504 Howells, R. G. and C. C. Miller. EGG CANNIBALISM BY ANADROMOUS BLUEBACK HERRING AND ALEWIFE. *Underwater Nat.* 18(3):19. 1989. FR 35(1)
Alosa aestivalis and *A. pseudoharengus.*

90-000505 James, A. G. and T. Probyn. THE RELATIONSHIP BETWEEN RESPIRATION RATE, SWIMMING SPEED AND FEEDING BEHAVIOUR IN THE CAPE ANCHOVY *ENGRAULIS CAPENSIS* GILCHRIST. *J. Exp. Mar. Biol. Ecol.* 131(2):81-100. 1989. FR 35(1)
[Sea Fish. Res. Inst., Private Bag X2, Rogge Bay, Cape Town 8012, South Africa]

90-000506 Johnston, Carol E. MALE MINNOWS BUILD SPAWNING NESTS. *Ill. Nat. Hist. Surv. Rep.* No. 291. p. 1-2. 1989. FR 35(1)
Semotilus corporalis, Luxilus chrysocephalus, Campostoma anomalum, Semotilus atromaculatus, Nocomis sp., and *Exoglossum* sp.

BEHAVIOR (CONTINUED)

90-000507 Jones, Robert S.; Elmer J. Gutherz; Walter R. Nelson and Gary C. Matlock. BURROW UTILIZATION BY YELLOWEDGE GROUPER, *EPINEPHELUS FLAVOLIMBATUS*, IN THE NORTHWESTERN GULF OF MEXICO. *Environ. Biol. Fishes* 26(4):277-284. 1989. FR 35(1)
[Univ. Tex. Austin, Mar. Sci. Inst., Port Aransas 78373]

90-000508 Kaya, Calvin M. RHEOTAXIS OF YOUNG ARCTIC GRAYLING FROM POPULATIONS THAT SPAWN IN INLET OR OUTLET STREAMS OF A LAKE. *Trans. Am. Fish. Soc.* 118(5):474-481. 1989. FR 35(1)
[Biol. Dep., Mont. State Univ., Bozeman 59717] *Thymallus arcticus.*

90-000509 Kirker, Richard Joseph. A DIEL AND SEASONAL STUDY OF A FRESHWATER STREAM FISH COMMUNITY. *Ph.D. dissertation, Fordham Univ.* 170p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(4):1202. 1989. Order No. DA8918637. FR 35(1)
Data for 13 species.

90-000510 Magnhagen, C. and L. Kvarnemo. BIG IS BETTER: THE IMPORTANCE OF SIZE FOR REPRODUCTIVE SUCCESS IN MALE *POMATOSCHISTUS MINUTUS* (PALLAS) (PISCES, GOBIIDAE). *J. Fish Biol.* 35(6):755-763. 1989. FR 35(1)
[Dep. Zool., Box 561, S-751 22 Uppsala, Sweden]

90-000511 Master, Terry Lee. THE INFLUENCE OF PREY AND HABITAT CHARACTERISTICS ON PREDATOR FORAGING SUCCESS AND STRATEGIES: A LOOK AT SNOWY EGRETS *(EGRETTA THULA)* AND THEIR PREY IN SALT MARSH PANNES. *Ph.D. dissertation, Lehigh Univ.* 182p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(6):2256. 1989. Order No. DA8921635. FR 35(1)
Fundulus heteroclitus and *Cyprinodon variegatus* in New Jersey.

90-000512 Meador, Michael Rogers. BEHAVIORAL AND PHYSIOLOGICAL ADAPTATIONS OF LARGEMOUTH BASS *(MICROPTERUS SALMOIDES)* TO LOW-SALINITY ENVIRONMENTS. *Ph.D. dissertation, La. State Univ. & Agric. & Mechanical Coll.* 128p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1718. 1989. Order No. DA8917837. FR 35(1)

90-000513 Munk, Peter; Thomas Kiorboe and Villy Christensen. VERTICAL MIGRATIONS OF HERRING, *CLUPEA HARENGUS*, LARVAE IN RELATION TO LIGHT AND PREY DISTRIBUTION. *Environ. Biol. Fishes* 26(2):87-96. 1989. FR 35(1)
[Danish Inst. Fish. & Mar. Res., Charlottenlund Castle, DK-2920 Charlottenlund, Denmark]

90-000514 Murphy, Michael L.; Johathan Heifetz; John F. Thedinga; Scott W. Johnson and K. V. Koski. HABITAT UTILIZATION BY JUVENILE PACIFIC SALMON (*ONCHORYNCHUS*) IN THE GLACIAL TAKU RIVER, SOUTHEAST ALASKA. *Can. J. Fish. Aquat. Sci.* 46(10):1677-1685. 1989. In English with French summ. FR 35(1)
[Auke Bay Lab., Fish Sci. Cent., NMFS, NOAA, P.O. Box 210155, Auke Bay, AK 99821]

90-000515 Nelissen, M. H. J. and S. Andries. DOES PREVIOUS EXPERIENCE AFFECT THE RANKING OF CICHLID FISH IN A DOMINANCE HIERARCHY? *Ann. Soc. R. Zool. Belg.* 118(1):41-50. 1988. From Ecol. Abstr. 89(6):89L/05927. 1989. FR 35(1)
Melanochromis auratus.

BEHAVIOR (CONTINUED)

90-000516 Ochi, Haruki. MATING BEHAVIOR AND SEX CHANGE OF THE ANEMONEFISH, *AMPHIPRION CLARKII*, IN THE TEMPERATE WATERS OF SOUTHERN JAPAN. *Environ. Biol. Fishes* 26(4):257-275. 1989. FR 35(1)
[Mukaishima Mar. Biol. Stn., Fac. Sci., Hiroshima Univ., P.O. 722, Onomichi, Japan]

90-000517 Omorinkoba, W. S.; E. O. Ita and S. Mohammed. STUDIES ON THE BIOLOGY OF *HETEROTIS NILOTICUS* (CUVIER) FAM: OSTEOGLOSSIDAE IN THE NATIONAL INSTITUTE FOR FRESHWATER FISHERIES RESEARCH (NIFFR) FISH POND. I: PRELIMINARY OBSERVATIONS ON THE BREEDING BEHAVIOUR AND FOOD AND FEEDING HABITS. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 117-123. 1989. FR 35(1)

90-000518 Parrish, Julia Kathryn. THE COSTS AND BENEFITS OF SCHOOLING IN FISH. *Ph.D. dissertation, Duke Univ.* 147p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(4):1284. 1989. Order No. DA8915476. FR 35(1)
Menidia menidia, Harengula thrissina, and *Centropristis striata.*

90-000519 Parrish, Julia K. LAYERING WITH DEPTH IN A HETEROSPECIFIC FISH AGGREGATION. *Environ. Biol. Fishes* 26(2):79-85. 1989. FR 35(1)
[Biol. Dep., UCLA, 405 Hilgard Ave., Los Angeles, CA 90024-1606] *Allanetta harringtonensis, Jenkensia lamprotaenia, Anchoa choerostoma,* and *Harengula humeralis* in the Bermuda Islands.

90-000520 Petersen, Christopher W. FEMALES PREFER MATING MALES IN THE CARMINE TRIPLEFIN, *AXOCLINUS CARMINALIS*, A PATERNAL BROOD-GUARDER. *Environ. Biol. Fishes* 26(3):213-221. 1989. FR 35(1)
[Smithsonian Trop. Res. Inst., APO Miami, FL 34002-0011]

90-000521 Poarch, Steven M. A BIOTELEMETRY STUDY OF STRIPED BASS IN OLD HICKORY RESERVOIR, CUMBERLAND RIVER, TENNESSEE. *M.S. thesis, Tenn. Technol. Univ.* 126p. 1989. FR 35(1)
Morone saxatilis.

90-000522 Ridgway, Mark S.; Greg P. Goff and Miles H. A. Keenleyside. COURTSHIP AND SPAWNING BEHAVIOR IN SMALLMOUTH BASS (*MICROPTERUS DOLOMIEUI*). *Am. Midl. Nat.* 122(2):209-213. 1989. FR 35(1)
[Dep. Zool., Univ. Toronto, Toronto, ON, Canada M5S 1A1]

90-000523 Schultz, Eric T. and Robert R. Warner. PHENOTYPIC PLASTICITY IN LIFE-HISTORY TRAITS OF FEMALE *THALASSOMA BIFASCIATUM* (PISCES: LABRIDAE). 1. MANIPULATIONS OF SOCIAL STRUCTURE IN TESTS FOR ADAPTIVE SHIFTS OF LIFE-HISTORY ALLOCATIONS. *Evolution* 43(7):1497-1506. 1989. FR 35(1)
[Dep. Biol. Sci. & Mar. Sci. Inst., Univ. Calif., Santa Barbara 93106]

90-000524 Sigurjonsdottir, Hrefna and Karl Gunnarsson. ALTERNATIVE MATING TACTICS OF ARCTIC CHARR, *SALVELINUS ALPINUS*, IN THINGVALLAVATN, ICELAND. *Environ. Biol. Fishes* 26(3):159-176. 1989. FR 35(1)
[Icelandic Inst. Teacher Educ., Stakkahlid, Reykjavik, Iceland]

90-000525 Smith, R. J. F. and M. J. Smith. PREDATOR-RECOGNITION BEHAVIOUR IN TWO SPECIES OF GOBIID FISHES, *ASTERROPTERYX SEMIPUNCTATUS* AND *GNATHOLEPIS ANJERENSIS*. *Ethology* 83(1):19-30. 1989. FR 35(1)
[Dep. Biol., Univ. Saskatchewan, Saskatoon, SN, Canada S7N 0W0]

BEHAVIOR (CONTINUED)

90-000526 Stone, Alexander. DAY OF THE NESTING SQUIRRELFISH. *Underwater Nat.* 18(3):21. 1989. FR 35(1)
Holocentrus ascensionis in Florida.

90-000527 Takahashi, Toyomi and Tatsuaki Maeda. FEEDING INTERRELATION BETWEEN TWO SPECIES OF *PLEURONECTES* IN MUTSU BAY, AOMORI PREFECTURE. *Nippon Suisan Gakkaishi* 55(10):1727-1739. 1989. In English. FR 35(1)
[Fac. Fish., Hokkaido Univ., Hakodate 041, Japan] *Limanda herzensteini L. yokohamae* in Japan.

90-000528 Tucker, John W., Jr. ENERGY UTILIZATION IN BAY ANCHOVY, *ANCHOA MITCHILLI*, AND BLACK SEA BASS, *CENTROPRISTIS STRIATA STRIATA*, EGGS AND LARVAE. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 87(2):279-293. 1989. FR 35(1)
[Harbor Branch Oceanogr. Inst., 5600 Old Dixie Hwy., Fort Pierce, FL 34946]

90-000529 Wieland, Werner. RESOURCE PARTITIONING IN DARTERS (PERCIDAE). *Va. J. Sci.* 40(2):61. 1989. Abstract only. FR 35(1)
[Dep. Biol. Sci., Mary Washington Coll., Fredericksburg, VA 22401] *Percina nigrofasciata, P. palmaris,* and *P. macrocephala.*

90-000530 Yin Mingcheng and J. H. S. Blaxter. [CRUISING SPEEDS DURING EARLY DEVELOPMENT AND STARVATION OF MARINE FISH LARVAE.] *Oceanol. Limnol. Sin.* 20(1):1-9. 1989. In Chinese with English summ. FR 35(1)
Clupea harengus, Gadus morhua, and *Platichthys flesus.*

LIFE HISTORY-GENERAL WORKS

90-000531 Auster, Peter J. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (NORTH ATLANTIC AND MID-ATLANTIC). TAUTOG AND CUNNER. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.105):13p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[NOAA's Natl. Undersea Res. Program, Univ. Conn. Avery Point, Groton 06340] *Tautoga onitis* and *Tautogolabrus adspersus.*

90-000532 Bozeman, Earl L., Jr., and Michael J. Van Den Avyle. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (SOUTH ATLANTIC). ALEWIFE AND BLUEBACK HERRING. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.111):17p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[Coop. Fish & Wildl. Res. Unit, School For. Resour., Univ. Ga., Athens 30602] *Alosa pseudoharengus* and *A. aestivalis.*

90-000533 Buckley, Jack. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (NORTH ATLANTIC). RAINBOW SMELT. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.106):11p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[Coop. Fish. Res. Unit, Dep. For. & Wildl. Manage., Univ. Mass., Amherst 01003] *Osmerus mordax.*

LIFE HISTORY-GENERAL WORKS (CONTINUED)

90-000534 Chevalier, Y. [BIOLOGY OF PIKE *ESOX LUCIUS* IN LAKE GENEVA.] *Soc. Vaudoise Sci. Nat.* 79(1):13-21. 1988. In French with English summ. From Ecol. Abstr. 89(5):89L/04779. 1989. FR 35(1)

90-000535 Cordiviola de Yuan, Elly and Clarice Pignalberi de Hassan. ICHTHYOLOGICAL STUDIES IN LA CUARENTENA LAGOON (CARABAJAL ISLAND), PARANA RIVER: DENSITY OF *PROCHILODUS PLATENSIS* HOLMBERG (CURIMATIDAE). *Hydrobiologia* 183(1):43-46. 1989. FR 35(1)
[Inst. Nac. Limnol. (CONICET), Macia 1933, 3016 Santo Tome, Santa Fe, Argentina]

90-000536 Dorman, J. A. SOME ASPECTS OF THE BIOLOGY OF THE GARFISH *BELONE BELONE* (L.) FROM SOUTHERN IRELAND. *J. Fish Biol.* 35(5):621-629. 1989. FR 35(1)
[Dep. Zool., Trinity Coll., Dublin 2, Ireland]

90-000537 Ebert, David A. LIFE HISTORY OF THE SEVENGILL SHARK, *NOTORYNCHUS CEPEDIANUS* PERON, IN TWO NORTHERN CALIFORNIA BAYS. *Calif. Fish Game* 75(2):102-112. 1989. FR 35(1)
[Dep. Ichthyol., Rhodes Univ., P.O. Box 94, Grahamstown 6140, South Africa]

90-000538 Edmonds, Les. EARTHLY ALIENS - THE PORCUPINEFISHES. *Trop. Fish Hobbyist* 38(2):54-58. 1989. FR 35(1)
Diodon spp.

90-000539 Eldridge, Maxwell Bruce. LIFE HISTORY STRATEGIES AND TACTICS OF STRIPED BASS *(MORONE SAXATILIS)* WALBAUM. *Ph.D. dissertation, Oreg. State Univ.* 152p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1736. 1989. Order No. DA8918666. FR 35(1)

90-000540 Elliott, J. M. MECHANISMS RESPONSIBLE FOR POPULATION REGULATION IN YOUNG MIGRATORY TROUT, *SALMO TRUTTA*. I. THE CRITICAL TIME FOR SURVIVAL. *J. Anim. Ecol.* 58(3):987-1001. 1989. FR 35(1)
[NERC Inst. Freshwater Ecol., Windermere Lab., Ambleside, Cumbria LA22 0LP, England]

90-000541 Fernandez-Delgado, C. LIFE-HISTORY PATTERNS OF THE MOSQUITO-FISH, *GAMBUSIA AFFINIS*, IN THE ESTUARY OF THE GUADALQUIVIR RIVER OF SOUTH-WEST SPAIN. *Freshwater Biol.* 22(3):395-404. 1989. FR 35(1)
[Zool. Sect., Dep. Anim. Biol., Sci. Fac., Univ. Cordoba, San Alberto Magno Ave., 14004 Cordoba, Spain]

90-000542 Godo, Olav Rune and Tore Haug. A REVIEW OF THE NATURAL HISTORY, FISHERIES, AND MANAGEMENT OF GREENLAND HALIBUT *(REINHARDTIUS HIPPOGLOSSOIDES)* IN THE EASTERN NORWEGIAN AND BARENTS SEAS. *J. Cons. Cons. Int. Explor. Mer* 46(1):62-75. 1989. FR 35(1)
[Inst. Mar. Res., P.O. Box 1870, N-5024 Bergen, Norway]

90-000543 Grimes, Barbara H.; Melvin T. Huish; J. Howard Kerby and David Moran. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (MID-ATLANTIC). SUMMER AND WINTER FLOUNDER. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.112):18p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[U.S. Fish & Wildl. Serv., Coop. Fish. Res. Unit, Dep. Zool., N.C. State Univ., Raleigh 27695] *Paralichthys dentatus* and *Pseudopleuronectes americanus*.

LIFE HISTORY-GENERAL WORKS (CONTINUED)

90-000544 Helfman, Gene S. PATTERNS IN THE LIFE HISTORY OF ANGUILLID EELS. *Verh. Int. Ver. Limnol.* 23(3):1663-1669. 1988. FR 35(1)
[Dep. Zool. & Inst. Ecol., Univ. Ga., Athens 30602] *Anguilla rostrata.*

90-000545 Herke, William H.; Barton D. Rogers and E. Eric Knudsen. HABITS AND HABITATS OF YOUNG SPOTTED SEATROUT IN LOUISIANA MARSHES. *La. Agric. Exp. Stn. Res. Rep.* No. 3. 48p. 1984. FR 35(1)
Cynoscion nebulosus.

90-000546 Houde, E. D. SUBTLETIES AND EPISODES IN THE EARLY LIFE OF FISHES. *J. Fish Biol.* 35(Suppl. A):29-38. 1989. FR 35(1)
[Univ. Md. Syst., Cent. Environ. & Estuarine Studies, Chesapeake Biol. Lab., Solomons 20688] *Morone saxatilis* and *Anchoa mitchilli* in Florida and Virginia.

90-000547 Jensen, John W. CRUSTACEAN PLANKTON AND FISH THROUGHOUT THE FIRST DECADE OF A SUBALPINE, MAN-MADE RESERVOIR. *Verh. Int. Ver. Limnol.* 23(2):1005. 1988. Abstract only. FR 35(1)
[Univ. Trondheim, Museet, Erling Skakkesgate 47, N-7000 Trondheim, Norway] *Lota lota, Salmo trutta,* and *Salvelinus alpinus* in Norway.

90-000548 Kleynhans, C. J. ASPECTS OF THE ECOLOGY OF *KNERIA AURICULATA* (PELLEGRIN, 1905) (PISCES: KNERIIDAE) FROM THE EASTERN TRANSVAAL, SOUTH AFRICA. *J. Limnol. Soc. South. Afr.* 14(2):108-118. 1988. FR 35(1)
[Transvaal Dir. Nat. Conserv., P.O. Box 20, Pretoria North 0116, South Africa]

90-000549 Kollodge, B. L. and J. T. Hatch. THE LIFE HISTORY OF THE RAINBOW DARTER *(ETHEOSTOMA CAERULEUM)* IN THE OTTERTAIL RIVER. *J. Minn. Acad. Sci.* 54(3):24. 1989. Abstract only. FR 35(1)
[Coll. Nat. Resour., Univ. Minn., Minneapolis 55108]

90-000550 Lassuy, Dennis R. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (PACIFIC NORTHWEST). ENGLISH SOLE. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.101):17p. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[Coop. Fish. Res. Unit, Dep. Fish. & Wildl., Oreg. State Univ., 104 Nash Hall, Corvallis 97331-3803] *Parophrys vetulus.*

90-000551 McMichael, Robert H., Jr.; Kevin M. Peters and Glenn R. Parsons. EARLY LIFE HISTORY OF THE SNOOK, *CENTROPOMUS UNDECIMALIS,* IN TAMPA BAY, FLORIDA. *Northeast Gulf Sci.* 10(2):113-125. 1989. FR 35(1)
[Mar. Res. Inst., Dep. Nat. Resour., 100 Eighth Ave. S.E., St. Petersburg, FL 33701-5095]

90-000552 Mills, D. H. PREDATOR CONTROL. *Inst. Terrestrial Ecol. (NERC) Symp.* No. 19. p. 53-56. 1987. FR 35(1)
[Dep. For. & Nat. Resour., Univ. Edinburgh, Edinburgh, Scotland]

90-000553 Murphy, Michael D. and Ronald G. Taylor. REPRODUCTION AND GROWTH OF BLACK DRUM, *POGONIAS CROMIS,* IN NORTHEAST FLORIDA. *Northeast Gulf Sci.* 10(2):127-137. 1989. FR 35(1)
[Mar. Res. Inst., Dep. Nat. Resour., 100 Eighth Ave. S.E., St. Petersburg, FL 33701-5095]

LIFE HISTORY-GENERAL WORKS (CONTINUED)

90-000554 Murray, C. B.; J. D. McPhail and M. L. Rosenau. REPRODUCTIVE AND DEVELOPMENTAL BIOLOGY OF KOKANEE FROM UPPER ARROW LAKE, BRITISH COLUMBIA. *Trans. Am. Fish. Soc.* 118(5):503-509. 1989. FR 35(1)
[Dep. Fish. & Oceans, Biol. Sci. Branch, Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6] *Oncorhynchus nerka.*

90-000555 Nielsen, Jorgen G.; E. Bertelsen and Ase Jespersen. THE BIOLOGY OF *EURYPHARYNX PELECANOIDES* (PISCES, EURYPHARYNGIDAE). *Acta Zool. (Stockh.)* 70(3):187-197. 1989. FR 35(1)
[Zool. Mus., Universitetsparken 15, DK-2100 Copenhagen 0, Denmark]

90-000556 Olivar, M. P. SPAWNING AND DEVELOPMENT OF *LESUEURIGOBIUS SANZOI* OFF NORTHERN NAMIBIA. *S. Afr. J. Zool.* 24(2):132-138. 1989. FR 35(1)
[Inst. Cienc. del Mar, Paseo Nac., s/n 08003, Barcelona, Spain]

90-000557 Olivar, M.-P.; P. Rubies and J. Salat. EARLY LIFE HISTORY AND SPAWNING OF *MERLUCCIUS CAPENSIS* CASTELNAU IN THE NORTHERN BENGUELA CURRENT. *S. Afr. J. Mar. Sci.* No. 6. p. 245-254. 1988. From Ecol. Abstr. 89(5):89L/04604. 1989. FR 35(1)

90-000558 Parameswaran, S. and M. Y. Kamal. SYNOPSIS OF BIOLOGICAL DATA ON THE GIANT MURREL, *CHANNA MARULIUS* (HAMILTON, 1822), THE STRIPED MURREL, *CHANNA STRIATUS* (BLOCH, 1793) AND THE SPOTTED MURREL, *CHANNA PUNCTATUS* (BLOCH, 1793). *Cent. Inland Fish. Res. Inst. Barrackpore Bull.* No. 53. 94p. 1988. FR 35(1)

90-000559 Rackowski, Joseph P. and Ellen K. Pikitch. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (PACIFIC SOUTHWEST). PACIFIC AND SPECKLED SANDDABS. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.107):18p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[Dep. Fish. & Wildl., Oreg. State Univ., Hatfield Mar. Sci. Cent., Newport 97365] *Citharichthys sordidus* and *C. stigmaeus.*

90-000560 Reina-Hervas, Jose A. [CONTRIBUTION TO THE STUDY OF THE FAMILY SYNGNATHIDAE (PISCES) OF THE SOUTHEAST SPANISH COAST.] *Arq. Mus. Bocage Nova Ser.* 1(21):325-334. 1989. In Spanish with English and Portuguese summ. FR 35(1)
[Dep. Zool., Fac. Cienc., Univ. Malaga, Apdo. 59, 29080 Malaga, Spain] *Syngnathus, Nerophis,* and *Hippocampus.*

90-000561 Reznick, David N. LIFE-HISTORY EVOLUTION IN GUPPIES: 2. REPEATABILITY OF FIELD OBSERVATIONS AND THE EFFECTS OF SEASON ON LIFE HISTORIES. *Evolution* 43(6):1285-1297. 1989. FR 35(1)
[Dep. Biol., Univ. Calif., Riverside 92521] *Crenicichla alta* and *Rivulus harti.*

90-000562 Riget, Frank and Jesper Boje. FISHERY AND SOME BIOLOGICAL ASPECTS OF GREENLAND HALIBUT (*REINHARDTIUS HIPPOGLOSSOIDES*) IN WEST GREENLAND WATERS. *Northwest Atl. Fish. Organ. Sci. Counc. Stud.* No. 13. p. 41-52. 1989. FR 35(1)
[Greenland Fish. Res. Inst., Tagensvej 135, DK-2200 Copenhagen N, Denmark]

LIFE HISTORY-GENERAL WORKS (CONTINUED)

90-000563 Rogers, S. Gordon and Michael J. Van Den Avyle. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (MID-ATLANTIC). ATLANTIC MENHADEN. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.108):23p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[Coop. Fish. Res. Unit, School For. Resour., Univ. Ga., Athens 30602] *Brevoortia tyrannus.*

90-000564 Rudloe, Anne. HABITAT PREFERENCES, MOVEMENT, SIZE FREQUENCY PATTERNS AND REPRODUCTIVE SEASONALITY OF THE LESSER ELECTRIC RAY, *NARCINE BRASILIENSIS. Northeast Gulf Sci.* 10(2):103-112. 1989. FR 35(1)
[Gulf Specimen Mar. Lab., P.O. Box 237, Panacea, FL 32346]

90-000565 Serrano Gordo, Leonel. AGE, GROWTH AND SEXUALITY OF SEA BASS, *DICENTRARCHUS LABRAX* (LINNAEUS, 1758) (PERCIFORMES, MORONIDAE) FROM AVEIRO LAGOON, PORTUGAL. *Sci. Mar.* 53(1):121-126. 1989. In English with Spanish summ. FR 35(1)
[Dep. Zool. & Antropol., Fac. Cienc., Bloco C-2, 3 Piso, Campo Grande, 1700 Lisbon, Portugal]

90-000566 Stein, David and Thomas J. Hassler. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (PACIFIC SOUTHWEST): BROWN ROCKFISH, COPPER ROCKFISH, AND BLACK ROCKFISH. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.113):15p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[Coll. Oceanogr., Oreg. State Univ., Corvallis 97331] *Sebastes auriculatus, S. caurinus,* and *S. melanops* in California.

90-000567 Stratton, Richard F. THE SPOTTED HAWKFISH. *Trop. Fish Hobbyist* 38(2):37-42. 1989. FR 35(1)
Cirrhitichthys oxycephalus.

90-000568 Thiesing, Mary Anne. COMPARATIVE ECOLOGY OF A GUILD OF MINNOWS (PISCES: CYPRINIDAE) IN A SOUTHEASTERN NEW YORK STREAM: HABITAT SEPARATION, SPATIAL DISTRIBUTION, AND FEEDING ECOLOGY. *Ph.D. dissertation, Fordham Univ.* 301p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(6):2257-2258. 1989. Order No. DA8918646. FR 35(1)
Notropis amoenus, N. cornutus, N. spilopterus, and *N. stramineus.*

90-000569 Titus, R. G. and H. Mosegaard. SMOLTING AT AGE 1 AND ITS ADAPTIVE SIGNIFICANCE FOR MIGRATORY TROUT, *SALMO TRUTTA* L., IN A SMALL BALTIC-COAST STREAM. *J. Fish Biol.* 35(Suppl. A):351-353. 1989. FR 35(1)
[Inst. Limnol., Uppsala Univ., Box 557, S-751 22 Uppsala, Sweden]

90-000570 Todd, Brian L.; Frank S. Dillon and Richard E. Sparks. OF CHANNEL CATFISH AND THE ILLINOIS RIVER. *Ill. Nat. Hist. Surv. Rep.* No. 289. p. 1-2. 1989. FR 35(1)
Ictalurus punctatus.

90-000571 Trotter, Patrick C. COASTAL CUTTHROAT TROUT: A LIFE HISTORY COMPENDIUM. *Trans. Am. Fish. Soc.* 118(5):463-473. 1989. FR 35(1)
[4926 26th Ave. S., Seattle, WA 98108] *Oncorhynchus clarki clarki* and *O. kisutch.*

LIFE HISTORY-GENERAL WORKS (CONTINUED)

90-000572 Ward, B. R.; P. A. Slaney; A. R. Facchin and R. W. Land. SIZE-BIASED SURVIVAL IN STEELHEAD TROUT (*ONCORHYNCHUS MYKISS*): BACK-CALCULATED LENGTHS FROM ADULTS' SCALES COMPARED TO MIGRATING SMOLTS AT THE KEOGH RIVER, BRITISH COLUMBIA. *Can. J. Fish. Aquat. Sci.* 46(11):1853-1858. 1989. In English with French summ. FR 35(1)
[Minist. Environ., Recreational Fish. Branch, 2204 Main Mall, Univ. British Columbia, Vancouver, BC, Canada V6T 1W5]

90-000573 Winters, G. H. LIFE HISTORY PARAMETERS OF SAND LANCES (*AMMODYTES* SPP.) FROM THE COASTAL WATERS OF EASTERN NEWFOUNDLAND. *J. Northwest Atl. Fish. Sci.* 9(1):5-11. 1989. FR 35(1)
[Dep. Fish. & Oceans, Sci. Branch, P.O. Box 5667, St. John's, NF, Canada A1C 5X1] *A. dubius* and *A. americanus*.

90-000574 Wischnath, Lothar. THE PYGMY SWORDTAIL, *XIPHOPHORUS PYGMAEUS*. *Trop. Fish Hobbyist* 38(2):16-18. 1989. FR 35(1)

POPULATION STUDIES, PRODUCTION, RECRUITMENT, ETC.

90-000575 Bendic, A. B. and G. P. Rudomjotkina. [SPATIAL CHARACTERISTIC FOR PERUVIAN HORSE MACKEREL (*TRACHURUS MURPHYI*) IN CONNECTION WITH YEAR-TO-YEAR DISTRIBUTION OF ACCESSIBLE POTENTIAL ENERGY IN THE SOUTH-EAST PACIFIC.] *Tr. Atl. Nauchno-Issled. Inst. Rybn. Khoz. Okeanogr.* No. 2089. p. 79-91, 134-135. 1988. In Russian with English summ. FR 35(1)

90-000576 Bestgen, Kevin R.; Steven P. Platania; James E. Brooks and David L. Propst. DISPERSAL AND LIFE HISTORY TRAITS OF *NOTROPIS GIRARDI* (CYPRINIFORMES: CYPRINIDAE), INTRODUCED INTO THE PECOS RIVER, NEW MEXICO. *Am. Midl. Nat.* 122(2):228-235. 1989. FR 35(1)
[Dep. Biol., Mus. Southwest. Biol., Univ. N.M., Albuquerque 87131]

90-000577 Elliott, J. M. THE CRITICAL-PERIOD CONCEPT FOR JUVENILE SURVIVAL AND ITS RELEVANCE FOR POPULATION REGULATION IN YOUNG SEA TROUT, *SALMO TRUTTA*. *J. Fish Biol.* 35(Suppl. A):91-98. 1989. FR 35(1)
[Nat. Environ. Res. Council, Inst. Freshwater Ecol., Windermere Lab., Ambleside, Cumbria LA22 0LP, England]

90-000578 Fomin, G. V.; Yu. V. Tsukan and Yu. P. Cherednichenko. [SOME CONDITIONS FOR MACKEREL CONCENTRATIONS FORMATION ON THE NAMIBIAN SHELF AND POSSIBILITIES FOR THEIR DETECTION.] *Tr. Atl. Nauchno-Issled. Inst. Rybn. Khoz. Okeanogr.* No. 2089. p. 60-69, 133. 1988. In Russian with English summ. FR 35(1)
Scomber japonicus.

90-000579 Heath, M. and K. Richardson. COMPARATIVE STUDY OF EARLY-LIFE SURVIVAL VARIABILITY OF HERRING, *CLUPEA HARENGUS*, IN THE NORTH-EASTERN ATLANTIC. *J. Fish Biol.* 35(Suppl. A):49-57. 1989. FR 35(1)
[DAFS Mar. Lab., Aberdeen AB9 8DB, Scotland]

90-000580 Helle, J. H. RELATION BETWEEN SIZE-AT-MATURITY AND SURVIVAL OF PROGENY IN CHUM SALMON, *ONCORHYNCHUS KETA* (WALBAUM). *J. Fish Biol.* 35(Suppl. A):99-107. 1989. FR 35(1)

POPULATION STUDIES, PRODUCTION, RECRUITMENT, ETC. (CONTINUED)

90-000580 CONTINUED
[Auke Bay Lab., Fish. Sci. Cent., NMFS, NOAA, P.O. Box 210155, Auke Bay, AK 99821]

90-000581 Livingston, P. A. KEY FISH SPECIES, NORTHERN FUR SEALS, *CALLORHINUS URSINUS*, AND FISHERIES INTERACTIONS INVOLVING WALLEYE POLLOCK, *THERAGRA CHALCOGRAMMA*, IN THE EASTERN BERING SEA. *J. Fish Biol.* 35(Suppl. A):179-186. 1989. FR 35(1)
[Alaska Fish. Sci. Cent., 7600 Sand Point Way NE, BIN C15700, Seattle, WA 98115]

90-000582 Malkov, A. S. [ON THE RELATIONSHIP BETWEEN THE YEAR-CLASS STRENGTH OF THE NORTH SEA HADDOCK AND THE ATMOSPHERIC CIRCULATION.] *Tr. Atl. Nauchno-Issled. Inst. Rybn. Khoz. Okeanogr.* No. 2089. p. 116-122, 137-138. 1988. In Russian with English summ. FR 35(1)
Melanogrammus aeglefinus.

90-000583 Mathisen, O. A.; P. L. Parker; J. J. Goering; T. C. Kline; P. H. Poe and R. S. Scalan. RECYCLING OF MARINE ELEMENTS TRANSPORTED INTO FRESHWATER SYSTEMS BY ANADROMOUS SALMON. *Verh. Int. Ver. Limnol.* 23(4):2249-2258. 1988. FR 35(1)
[Univ. Alaska, Cent. Fish. & Ocean Sci., 11120 Glacier Hwy., Juneau 99801]
Oncorhynchus spp. in Alaska.

90-000584 Ostapenko, A. T. [ECOLOGICAL FACTORS AND MACKEREL FISHERY (*SCOMBER JAPONICUS*) IN THE SOUTH-EAST ATLANTIC.] *Tr. Atl. Nauchno-Issled. Inst. Rybn. Khoz. Okeanogr.* No. 2089. p. 45-60, 132-133. 1988. In Russian with English summ. FR 35(1)

90-000585 Parker, David Y., Jr. LAKE TROUT STUDIES AT KAGATI LAKE, TOGIAK NATIONAL WILDLIFE REFUGE, ALASKA. *J. Tenn. Acad. Sci.* 64(4):244. 1989. Abstract only. FR 35(1)
Salvelinus namaycush.

90-000586 Tsukamoto, K.; H. Kuwada; J. Hirokawa; M. Oya; S. Sekiya; H. Fujimoto and K. Imaizumi. SIZE-DEPENDENT MORTALITY OF RED SEA BREAM, *PAGRUS MAJOR*, JUVENILES RELEASED WITH FLUORESCENT OTOLITH-TAGS IN NEWS BAY, JAPAN. *J. Fish Biol.* 35(Suppl. A):59-69. 1989. FR 35(1)
[Ocean Res. Inst., Univ. Tokyo, Minamidai, Nakano-ku, Tokyo 164, Japan]

90-000587 Velikanov, A. Ya. DATA ON THE EGGS AND LARVAE OF THE PACIFIC CAPELIN (*MALLOTUS VILLOSUS SOCIALIS*) ALONG THE SHORES OF SOUTHERN SAKHALIN. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):86-91. 1988. FR 35(1)
[Sakhalin Branch Pac. Sci. Res. Inst. Fish. & Oceanogr., SakhTINRO, Yuzhno-Sakhalinsk, USSR]

90-000588 Yeh, Shinn-Pyng. INFLUENCES OF ABIOTIC FACTORS ON THE RETURN, OCEAN ABUNDANCE, AND MATURITY OF SOCKEYE SALMON (*ONCORHYNCHUS NERKA*) IN THE NORTHERN NORTH PACIFIC OCEAN. *Ph.D. dissertation, Univ. Alaska (Fairbanks)* 149p. 1987. From Diss. Abstr. Int. B Sci. Eng. 50(5):1733. 1989. Order No. DA8918586. FR 35(1)

SPAWNING HABITS AND MOVEMENTS, FECUNDITY, ETC.

90-000589 Aneer, Gunnar. HERRING (*CLUPEA HARENGUS* L.) SPAWNING AND SPAWNING GROUND CHARACTERISTICS IN THE BALTIC SEA. *Fish. Res. (Amst.)* 8(2):169-195. 1989. FR 35(1)
[Asko Lab., Inst. Mar. Ecol., Univ. Stockholm, S-106 91 Stockholm, Sweden]

90-000590 Asano, Kenji and Syoiti Tanaka. OVARIAN MATURATION AND SPAWNING OF THE JAPANESE COMMON MACKEREL *SCOMBER JAPONICUS*. *Nippon Suisan Gakkaishi* 55(10):1715-1726. 1989. In English. FR 35(1)
[Fac. Bioresour., Mie Univ., Kamihama, Tsu, Mie 514, Japan]

90-000591 Carscadden, J. E.; K. T. Frank and D. S. Miller. CAPELIN (*MALLOTUS VILLOSUS*) SPAWNING ON THE SOUTHEAST SHOAL: INFLUENCE OF PHYSICAL FACTORS PAST AND PRESENT. *Can. J. Fish. Aquat. Sci.* 46(10):1743-1754. 1989. In English with French summ. FR 35(1)
[Dep. Fish. & Oceans, Sci. Branch, P.O. Box 5667, St. John's, NF, Canada A1C 5X1]

90-000592 Chadwick, E. M. P. and R. R. Claytor. RUN TIMING OF PELAGIC FISHES IN GULF OF ST. LAWRENCE: AREA AND SPECIES EFFECTS. *J. Fish Biol.* 35(Suppl. A):215-223. 1989. FR 35(1)
[Dep. Fish. & Oceans, Gulf Region, Sci. Branch, Mar. & Anadromous Fish Div., P.O. Box 5030, Moncton, NB, Canada E1C 9B6] *Alosa pseudoharengus, Osmerus mordax, Salmo salar,* and *Clupea harengus.*

90-000593 Clay, Douglas. OOGENESIS AND FECUNDITY OF HADDOCK (*MELANOGRAMMUS AEGLEFINUS* L.) FROM THE NOVA SCOTIA SHELF. *J. Cons. Cons. Int. Explor. Mer* 46(1):24-34. 1989. FR 35(1)
[Mar. & Anadromous Fish Div., Dep. Fish. & Oceans, Gulf Fish. Cent., P.O. Box 5030, Moncton, NB, Canada E1C 9B6]

90-000594 Dasgupta, M. and P. Bhattacharjee. FECUNDITY OF *GAGATA CENIA* (HAMILTON) FROM RIVER BRAHMAPUTRA, ASSAM (INDIA). *Arq. Mus. Bocage Nova Ser.* 1(12):205-212. 1988. In English with French summ. FR 35(1)
[Anim. Ecol. Lab., Dep. Zool., Gauhati Univ., Gauhati-781 014, India]

90-000595 Graham, K. J. and J. D. Bell. COLLABORATIVE STUDY FINDS UNEXPECTED SPAWNING POPULATION OF ORANGE ROUGHY. *Search (Syd.)* 20(4):132-133. 1989. FR 35(1)
[Fish. Res. Inst., New South Wales Agric. & Fish., P.O. Box 21, Cronulla, N.S.W. 2230, Australia] *Hoplostethus atlanticus* in Australia and New Zealand.

90-000596 Kadlec, Jaroslav. THE BLUE NOTHO, *NOTHOBRANCHIUS JUBBI*. *Trop. Fish Hobbyist* 38(2):10-15. 1989. FR 35(1)

90-000597 Knapp, Roland A. and Robert Craig Sargent. EGG-MIMICRY AS A MATING STRATEGY IN THE FANTAIL DARTER, *ETHEOSTOMA FLABELLARE*: FEMALES PREFER MALES WITH EGGS. *Behav. Ecol. Sociobiol.* 25(5):321-326. 1989. FR 35(1)
[Sargent: Behav. & Evol. Ecol. Res. Group, T.H. Morgan School Biol. Sci., Univ. Ky., Lexington 40506-0225]

90-000598 Lambert, Timothy C. and Shoukry N. Messieh. SPAWNING DYNAMICS OF GULF OF ST. LAWRENCE HERRING (*CLUPEA HARENGUS*). *Can. J. Fish. Aquat. Sci.* 46(12):2085-2094. 1989. In English with French summ. FR 35(1)

SPAWNING HABITS AND MOVEMENTS, FECUNDITY, ETC. (CONTINUED)

90-000598 CONTINUED
[Dep. Fish. & Oceans, Mar. Fish. Div., Bedford Inst. Oceanogr., Dartmouth, NS, Canada]

90-000599 Lorenz, J. Mitchel and John H. Eiler. SPAWNING HABITAT AND REDD CHARACTERISTICS OF SOCKEYE SALMON IN THE GLACIAL TAKU RIVER, BRITISH COLUMBIA AND ALASKA. *Trans. Am. Fish. Soc.* 118(5):495-502. 1989. FR 35(1)
[NMFS, Fish. Sci. Cent., Auke Bay Lab., P.O. Box 210155, Auke Bay, AK 99821] *Oncorhynchus nerka.*

90-000600 Meffe, Gary K. and Franklin F. Snelson, Jr., editors. ECOLOGY AND EVOLUTION OF LIVEBEARING FISHES (POECILIIDAE). *Prentice Hall, Inc.* 453p. 1989. Available at $50.00 (cloth) from Prentice Hall, Inc., Book Distribution Cent., Rt. 59 at Brook Hill Dr., West Nyack, NY 10995. FR 35(1)

90-000601 Moreno, Juan Antonio; Jose Ignacio Parajua and Julio Moron. [BREEDING BIOLOGY AND PHENOLOGY OF *ALOPIAS VULPINUS* (BONNATERRE, 1788) (SQUALIFORMES: ALOPIIDAE) IN THE NORTH-EASTERN ATLANTIC AND WESTERN MEDITERRANEAN.] *Sci. Mar.* 53(1):37-46. 1989. In Spanish with English summ. FR 35(1)
[Dep. Biol. Anim. I, Catedra Zool. Vertebr., Fac. Cienc. Biol., Univ. Complutense Madrid, Spain]

90-000602 Palicka, Jiri. BREEDING *PRISTELLA MAXILLARIS. Trop. Fish Hobbyist* 38(2):70-75. 1989. FR 35(1)

90-000603 Randall, R. G. EFFECT OF SEA-AGE ON THE REPRODUCTIVE POTENTIAL OF ATLANTIC SALMON (*SALMO SALAR*) IN EASTERN CANADA. *Can. J. Fish. Aquat. Sci.* 46(12):2210-2218. 1989. In English with French summ. FR 35(1)
[Dep. Fish. & Oceans, Gulf Fish. Cent., Sci. Branch, P.O. Box 5030, Moncton, NB, Canada E1C 9B6]

90-000604 Richter, Hans-Joachim. BREEDING THE FORK-TAILED RAINBOWFISH, *POPONDICHTHYS FURCATA. Trop. Fish Hobbyist* 38(2):88-93. 1989. FR 35(1)

90-000605 Rijnsdorp, A. D. MATURATION OF MALE AND FEMALE NORTH SEA PLAICE (*PLEURONECTES PLATESSA* L.). *J. Cons. Cons. Int. Explor. Mer* 46(1):35-51. 1989. FR 35(1)
[Netherlands Inst. Fish. Invest., RIVO, P.O. Box 68, 1970 AB IJmuiden, Netherlands]

90-000606 Skulason, S.; S. S. Snorrason; D. L. G. Noakes; M. M. Ferguson and H. J. Malmquist. SEGREGATION IN SPAWNING AND EARLY LIFE HISTORY AMONG POLYMORPHIC ARCTIC CHARR, *SALVELINUS ALPINUS*, IN THINGVALLAVATN, ICELAND. *J. Fish Biol.* 35(Suppl. A):225-232. 1989. FR 35(1)
[Dep. Zool., Univ. Guelph, Guelph, ON, Canada N1G 2W1]

90-000607 Townsend, C. R. POPULATION CYCLES IN FRESHWATER FISH. *J. Fish Biol.* 35(Suppl. A):125-131. 1989. FR 35(1)
[Dep. Zool., Univ. Otago, P.O. Box 56, Dunedin, New Zealand] *Oncorhynchus nerka, Coregonus albula,* and *Rutilus rutilus* in North America.

SPAWNING HABITS AND MOVEMENTS, FECUNDITY, ETC. (CONTINUED)

90-000608 Watson, Thomas T. ANGEL BLUES. *Trop. Fish Hobbyist* 38(2):78-87. 1989. FR 35(1)
Pterophyllum scalare.

MOVEMENTS, SEASONAL AND DEPTH DISTRIBUTION, ETC.

90-000609 Bryan, Roger D. and John J. Ney. DYNAMICS OF NATIVE BROOK TROUT IN THE HAZEL RIVER, SHENANDOAH NATIONAL PARK. *Va. J. Sci.* 40(2):78. 1989. Abstract only. FR 35(1)
[Dep. Fish. & Wildl. Sci., VPI&SU, Blacksburg, VA 24061] *Salvelinus fontinalis* in Virginia.

90-000610 Galvan-Magana, Felipe; Henk J. Nienhuis and A. Peter Klimley. SEASONAL ABUNDANCE AND FEEDING HABITS OF SHARKS OF THE LOWER GULF OF CALIFORNIA, MEXICO. *Calif. Fish Game* 75(2):74-84. 1989. FR 35(1)
[Klimley: Bodega Mar. Lab., Univ. Calif., Davis, P.O. Box 247, Bodega Bay 94923] *Sphyrna lewini, S. zygaena, Carcharhinus falciformes, Mustelus lunatus, Heterodontus mexicanus,* and *Squatina californica.*

90-000611 Hartmann, J. and H. Loffler. [DEPTH-DISTRIBUTION OF THE FISHES OF LAKE CONSTANCE.] *Osterreichs Fischerei* 42(10):236-240. 1989. In German with English summ. FR 35(1)
[Inst. Seenforschung & Fischereiwesen, Untere Seestr. 81, D-7994 Langenargen, West Germany] *Abramis brama, Coregonus lavaretus, Leuciscus leuciscus, Perca fluviatilis,* and *Rutilus rutilus.*

90-000612 Hocutt, Charles H. SEASONAL AND DIEL BEHAVIOUR OF RADIO-TAGGED *CLARIAS GARIEPINUS* IN LAKE NGEZI, ZIMBABWE (PISCES: CLARIIDAE). *J. Zool.* 219(2):181-199. 1989. FR 35(1)
[Horn Point Environ. Lab., Univ. Md., Cambridge 21613]

90-000613 Hocutt, Charles H. BEHAVIOUR OF RADIO-TAGGED *TILAPIA RENDALLI* BOULENGER IN LAKE NGEZI, ZIMBABWE. *J. Limnol. Soc. South. Afr.* 14(2):124-126. 1988. FR 35(1)
[Horn Point Environ. Lab., Univ. Md., Cambridge 21613]

90-000614 John, H.-Ch. and M. Kloppmann. ONTOGENETIC CHANGES IN THE VERTICAL DISTRIBUTION OF LARVAL *MAUROLICUS MUELLERI* (GMELIN, 1789). *Arch. Fischereiwiss.* 39(3):79-93. 1989. In English with German summ. FR 35(1)
[Taxon. Arbeitsgruppe Biol. Anstalt Helgoland, c/o Zool. Inst. & Mus., Univ. Hamburg, Martin-Luther-King-Platz 3, D-2000 Hamburg 13, West Germany]

90-000615 Kloppmann, M. [COMPOSITION, ABUNDANCE AND VERTICAL DISTRIBUTION OF FISHLARVAE ABOVE HATTON AND ROCKALL BANK (WEST OFF BRITAIN).] *Arch. Fischereiwiss.* 39(3):95-110. 1989. In German with English summ. FR 35(1)
[c/o Zool. Inst. & Mus., Univ. Hamburg, Martin-Luther-King-Platz 3, D-2000 Hamburg 13, West Germany] *Maurolicus muelleri, Benthosema glaciale,* and *Lampanyctus crocodilus.*

90-000616 Laprise, R. and J. J. Dodson. ONTOGENETIC CHANGES IN THE LONGITUDINAL DISTRIBUTION OF TWO SPECIES OF LARVAL FISH IN A TURBID WELL-MIXED ESTUARY. *J. Fish Biol.* 35(Suppl. A):39-47. 1989. FR 35(1)
[Dep. Biol., Univ. Laval, Sainte-Foy, PQ, Canada G1K 7P4] *Osmerus mordax* and *Microgadus tomcod* in the St. Lawrence Seaway.

MOVEMENTS, SEASONAL AND DEPTH DISTRIBUTION, ETC. (CONTINUED)

90-000617 Lough, R. G. and G. R. Bolz. THE MOVEMENT OF COD AND HADDOCK LARVAE ONTO THE SHOALS OF GEORGES BANK. *J. Fish Biol.* 35(Suppl. A):71-79. 1989. FR 35(1)
[NMFS, Northeast Fish. Cent., Woods Hole, MA 02543] *Melanogrammus aeglefinus* and *Gadus morhua.*

90-000618 Rose, G. A. and W. C. Leggett. INTERACTIVE EFFECTS OF GEOPHYSICALLY-FORCED SEA TEMPERATURES AND PREY ABUNDANCE ON MESOSCALE COASTAL DISTRIBUTIONS OF A MARINE PREDATOR, ATLANTIC COD *(GADUS MORHUA). Can. J. Fish. Aquat. Sci.* 46(11):1904-1913. 1989. In English with French summ. FR 35(1)
[Dep. Fish. & Oceans, Sci. Branch, Northwest Atl. Fish. Cent., St. John's, NF, Canada A1C 5X1]

90-000619 Savvatimsky, P. I. DISTRIBUTION AND BIOLOGY OF COMMON GRENADIER *(NEZUMIA BAIRDI)* FROM TRAWL SURVEYS IN THE NORTHWEST ATLANTIC, 1969-83. *Northwest Atl. Fish. Organ. Sci. Counc. Stud.* No. 13. p. 53-58. 1989. FR 35(1)
[Polar Res. Inst. Mar. Fish. & Oceanogr. (PINRO), 6 Knipovich St., Murmansk 183763, USSR]

90-000620 Savvatimsky, P. I. INVESTIGATIONS OF ROUGHHEAD GRENADIER (*MACROURUS BERGLAX* L.) IN THE NORTHWEST ATLANTIC, 1967-83. *Northwest Atl. Fish. Organ. Sci. Counc. Stud.* No. 13. p. 59-75. 1989. FR 35(1)
[Polar Res. Inst. Mar. Fish. & Oceanogr. (PINRO), 6 Knipovich St., Murmansk 183763, USSR]

90-000621 Swales, Stephen. UTILIZATION OF OFF-CHANNEL HABITATS BY JUVENILE COHO SALMON *(ONCORHYNCHUS KISUTCH)* IN INTERIOR AND COASTAL STREAMS IN BRITISH COLUMBIA. *Verh. Int. Ver. Limnol.* 23(3):1676. 1988. Abstract only. FR 35(1)
[Dep. Biol. Sci., Univ. Waikato, Hamilton, New Zealand]

FOODS/FEEDING

90-000622 Abrahams, Mark Vivian. BEHAVIOURAL DECISIONS OF GUPPIES *(POECILIA RETICULATA)*: A QUANTIFICATION OF FORAGING TRADE-OFFS USING THE IDEAL FREE DISTRIBUTION. *Ph.D. dissertation, Simon Fraser Univ. (Canada)* 1988. From Diss. Abstr. Int. B Sci. Eng. 50(4):1219. 1989. FR 35(1)

90-000623 Arthington, Angela H. DIET OF *GAMBUSIA AFFINIS HOLBROOKI* (BAIRD & GIRARD) IN STREAMS OF THE BRISBANE REGION, SOUTHEASTERN QUEENSLAND, AUSTRALIA. *Verh. Int. Ver. Limnol.* 23(3):1777. 1988. Abstract only. FR 35(1)
[School Australian Environ. Studies, Griffith Univ., Nathan, Qld. 4111, Australia]

90-000624 Arts, Michael T. and W. Gary Sprules. LARGE *DAPHNIA* AS AN INDICATOR OF FISH PREDATION ON ANOTHER ZOOPLANKTON SPECIES (*HOLOPEDIUM GIBBERUM* ZADDACH). *Verh. Int. Ver. Limnol.* 23(3):1685-1691. 1988. FR 35(1)
[Dep. Zool., Erindale Coll., Univ. Toronto, Mississauga, ON, Canada L5L 1C6]

FOODS/FEEDING (CONTINUED)

90-000625 Arumugam, P. T. and M. C. Geddes. PREDATION OF GOLDEN PERCH (*MACQUARIA AMBIGUA*) FRY ON *DAPHNIA CARINATA* IN NURSERY PONDS, AUSTRALIA. *Verh. Int. Ver. Limnol.* 23(3):1773-1776. 1988. FR 35(1)
[Fac. Fish. & Mar. Sci., Univ. Pertanian Malaysia, 43400 UPM Sedang, Selangor, Malaysia]

90-000626 Bankole, N. O. FEEDING HABITS OF SELECTED FISH SPECIES FROM TIGA LAKE, KANO STATE, NIGERIA. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 23-27. 1989. FR 35(1)
Alestes nurse, Brycon dentex, Barilius senegalensis, Bagrus bayad, Schilbe mystus, Gnathonemus senegalensis, Tilapia galilaea, and *T. nilotica.*

90-000627 Berruti, A. DISTRIBUTION OF AND PREDATION ON SAURY *SCOMBERESOX SAURUS SCOMBROIDES* IN CONTINENTAL SHELF WATERS OFF THE CAPE PROVINCE, SOUTH AFRICA. *S. Afr. J. Mar. Sci.* No. 6. p. 183-192. 1988. From Ecol. Abstr. 89(5):89L/04606. 1989. FR 35(1)
Thunnus albacares.

90-000628 Bollens, Stephen M. and Bruce W. Frost. ZOOPLANKTIVOROUS FISH AND VARIABLE DIEL VERTICAL MIGRATION IN THE MARINE PLANKTONIC COPEPOD *CALANUS PACIFICUS. Limnol. Oceanogr.* 34(6):1072-1083. 1989. FR 35(1)
[School Oceanogr., WB-10, Univ. Wash., Seattle 98195] Data for 15 species.

90-000629 Cherry, R. D.; M. Heyraud and A. G. James. DIET PREDICTION IN COMMON CLUPEOID FISH USING POLONIUM-210 DATA. *J. Environ. Radioact.* 10(1):47-65. 1989. FR 35(1)
[Dep. Physics, Univ. Cape Town, Rondebosch 7700, Cape Town, South Africa] *Engraulis capensis* and *Sardinops ocellata* in South Africa.

90-000630 Cryer, Martin. PREDATORY IMPACT OF NEW ZEALAND SMELT ON NATURAL POPULATIONS OF ZOOPLANKTON. *Verh. Int. Ver. Limnol.* 23(3):1778-1783. 1988. FR 35(1)
[Wildl. Serv., Tongariro Hatchery, Private Bag, New Zealand] *Retropinna retropinna.*

90-000631 Culp, Joseph M. DIEL FEEDING OF A LOTIC BENTHIC FISH, *RHINICHTHYS CATARACTAE* (CYPRINIDAE). *Verh. Int. Ver. Limnol.* 23(3):1677-1678. 1988. FR 35(1)
[Dep. Biol., Univ. Calgary, Calgary, AB, Canada T2N 1N4]

90-000632 Eklov, Peter and Stellan F. Hamrin. PREDATORY EFFICIENCY AND PREY SELECTION: INTERACTIONS BETWEEN PIKE *ESOX LUCIUS*, PERCH *PERCA FLUVIATILIS* AND RUDD *SCARDINUS ERYTHROPHTHALMUS. Oikos* 56(2):149-156. 1989. FR 35(1)
[Dep. Anim. Ecol., Univ. Umea, S-901 87 Umea, Sweden]

90-000633 Forsyth, D. J. and M. R. James. INVERTEBRATE-FISH INTERACTIONS IN LAKE OKARO, NORTH ISLAND, NEW ZEALAND. *Verh. Int. Ver. Limnol.* 23(3):1784. 1988. Abstract only. FR 35(1)
[Taupo Res. Lab., Div. Mar. & Freshwater Sci., DSIR, P.O. Box 415, Taupo, New Zealand] *Gobiomorphus cotidianus.*

FOODS/FEEDING (CONTINUED)

90-000634 Hodgson, James R. and Philip A. Cochran. THE EFFECT OF SAMPLING METHODOLOGY ON DIET ANALYSIS IN LARGEMOUTH BASS (*MICROPTERUS SALMOIDES*). *Verh. Int. Ver. Limnol.* 23(3):1670-1675. 1988. FR 35(1)
[Div. Nat. Sci., St. Norbert Coll., De Pere, WI 54115]

90-000635 Keast, Allen. PLANKTIVORY IN LARVAL, JUVENILE, AND ADULT PLANKTIVORES: RESOURCE DIVISION IN A SMALL LAKE. *Verh. Int. Ver. Limnol.* 23(3):1692-1697. 1988. FR 35(1)
[Dep. Biol., Queen's Univ., Kingston, ON, Canada K7L 3N6] *Notemigonus crysoleucas, Pimephales notatus, Notropis heterodon, Labidesthes sicculus, Alosa pseudoharengus, Perca flavescens, Lepomis macrochirus,* and *Micropterus salmoides* in Canada.

90-000636 Koeller, P. A.; L. Coates-Markle and J. D. Neilson. FEEDING ECOLOGY OF JUVENILE (AGE-0) SILVER HAKE (*MERLUCCIUS BILINEARIS*) ON THE SCOTIAN SHELF. *Can. J. Fish. Aquat. Sci.* 46(10):1762-1768. 1989. In English with French summ. FR 35(1)
[Dep. Fish. & Oceans, Mar. Assess. & Liaison Div., P.O. Box 1006, Bedford Inst. Oceanogr., Dartmouth, NS, Canada B2Y 4A2]

90-000637 Kozlov, A. N.; I. A. Pinskaya; S. G. Podrazhanskaya and M. I. Tarverdieva. FEEDING OF GLASSFISHES IN DIFFERENT REGIONS OF THE ATLANTIC SECTOR OF ANTARCTICA. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):137-145. 1988. FR 35(1)
[All-Union Mar. Fish. & Oceanogr. Res. Inst., VNIRO, Moscow, USSR] *Champsocephalus gunnari, Pseudochaenichthys georgianus, Chaenocephalus aceratus,* and *Chaenodraco wilsoni.*

90-000638 Krasnoper, E. V. [ON QUANTITATIVE CALCULATION OF TUBIFICIDAE (OLIGOCHAETA) IN FISHES NUTRITION.] *Gidrobiol. Zh.* 25(1):91-96. 1989. In Russian with English summ. FR 35(1)

90-000639 Kuns, Michelle; Terry Goeke and Jay Hatch. A COMPARISON OF THE VARIANCE IN FUNCTIONAL RESPONSE WITH THE VARIANCE IN NATURAL FEEDING OF JUVENILE YELLOW PERCH. *J. Minn. Acad. Sci.* 54(3):24. 1989. Abstract only. FR 35(1)
[Univ. Minn., Minneapolis 55108] *Perca flavescens* in Minnesota.

90-000640 Main, M. R. and G. L. Lyon. CONTRIBUTION OF TERRESTRIAL PREY TO THE DIET OF BANDED KOKOPU (*GALAXIAS FASCIATUS* GRAY) (PISCES: GALAXIIDAE) IN SOUTH WESTLAND, NEW ZEALAND. *Verh. Int. Ver. Limnol.* 23(3):1785-1789. 1988. FR 35(1)
[Zool. Dep., Univ. Canterbury, Private Bag, Christchurch, New Zealand]

90-000641 Majhi, A. and M. Dasgupta. A STUDY ON THE FOOD AND FEEDING HABITS OF *PILLIA INDICA* YAZDANI. *Arq. Mus. Bocage Nova Ser.* 1(24):353-359. 1989. In English with Portuguese summ. FR 35(1)
[Dep. Zool., School Life Sci., North-East. Hill Univ., Shillong-793 014, India]

90-000642 Montgomery, W. Linn; Arthur A. Myrberg, Jr., and Lev Fishelson. FEEDING ECOLOGY OF SURGEONFISHES (ACANTHURIDAE) IN THE NORTHERN RED SEA, WITH PARTICULAR REFERENCE TO *ACANTHURUS NIGROFUSCUS* (FORSSKAL). *J. Exp. Mar. Biol. Ecol.* 132(3):179-207. 1989. FR 35(1)
[Dep. Biol. Sci., North. Ariz. Univ., Flagstaff 86011] *Ctenochaetus striatus* and *Zebrasoma xanthurus.*

FOODS/FEEDING (CONTINUED)

90-000643 Nagata, Mitsuhiro. SATIATION AND GASTRIC EVACUATION IN JUVENILE MASU SALMON. *Nippon Suisan Gakkaishi* 55(9):1523-1528. 1989. In English with Japanese summ. FR 35(1)
[Hokkaido Fish Hatchery, Kitakashiwagi, Eniwa 061-14, Japan] *Oncorhynchus masou.*

90-000644 Northcott, Mark E. AN INVESTIGATION OF FILTER-FEEDING IN THE TILAPIA *OREOCHROMIS NILOTICUS* (L.). *Ph.D. dissertation, Univ. Stirling (United Kingdom)* 249p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1718. 1989. Order No. BRD-86147. FR 35(1)

90-000645 Okutani, Takashi and Shin'ichi Tsukada. SQUIDS EATEN BY LANCETFISH AND TUNAS IN THE TROPICAL INDO-PACIFIC OCEANS. *J. Tokyo Univ. Fish.* 75(1):1-44. 1988. In English with Japanese summ. FR 35(1)
[Lab. Aquat. Biol., Tokyo Univ. Fish., 5-7 Konan 4, Minato-ku, Tokyo 108, Japan] *Alepisaurus ferox.*

90-000646 Osenberg, Craig W. and Gary G. Mittelbach. EFFECTS OF BODY SIZE ON THE PREDATOR-PREY INTERACTION BETWEEN PUMPKINSEED SUNFISH AND GASTROPODS. *Ecol. Monogr.* 59(4):405-432. 1989. FR 35(1)
[Dep. Biol. Sci., Univ. Calif., Santa Barbara 93106] *Lepomis gibbosus.*

90-000647 Pierce, G. J.; J. S. W. Diack and P. R. Boyle. DIGESTIVE TRACT CONTENTS OF SEALS IN THE MORAY FIRTH AREA OF SCOTLAND. *J. Fish Biol.* 35(Suppl. A):341-343. 1989. FR 35(1)
[Dep. Zool., Univ. Aberdeen, Tillydrone Ave., Aberdeen AB9 2TN, Scotland] Data for 14 species.

90-000648 Pusey, B. J. and P. F. Morrison. THE DIET OF RAINBOW TROUT IN WUNGONG DAM, WESTERN AUSTRALIA. *West. Aust. Nat.* 18(2):37-40. 1989. FR 35(1)
[Cent. Catchment & In-Stream Res., Griffith Univ., Nathan, Qld. 4111, Australia] *Oncorhynchus mykiss.*

90-000649 Roel, B. A. and E. Macpherson. FEEDING OF *MERLUCCIUS CAPENSIS* AND *M. PARADOXUS* OFF NAMIBIA. *S. Afr. J. Mar. Sci.* No. 6. p. 227-243. 1988. From Ecol. Abstr. 89(5):89L/04603. 1989. FR 35(1)

90-000650 Ross, Jeffrey L.; John S. Pavela and Mark E. Chittenden, Jr. FOOD HABITS OF THE ROCK SEA BASS, *CENTROPRISTIS PHILADELPHICA*, IN THE WESTERN GULF OF MEXICO. *Northeast Gulf Sci.* 10(2):139-152. 1989. FR 35(1)
[Div. Mar. Fish., P.O. Box 1787, Manteo, NC 27954]

90-000651 Schneider, D. C. IDENTIFYING THE SPATIAL SCALE OF DENSITY-DEPENDENT INTERACTION OF PREDATORS WITH SCHOOLING FISH IN THE SOUTHERN LABRADOR CURRENT. *J. Fish Biol.* 35(Suppl. A):109-115. 1989. FR 35(1)
[Ocean Sci. Cent., Memorial Univ. Newfoundland, St. John's, NF, Canada A1B 3X7] *Mallotus villosus* in Canada.

90-000652 Sigurdson, R. E. and J. T. Hatch. SEASONAL SHIFTS IN THE DIET OF THE LEAST DARTER FROM THE OTTERTAIL RIVER. *J. Minn. Acad. Sci.* 54(3):24. 1989. Abstract only. FR 35(1)
[Coll. Biol. Sci., Univ. Minn., Minneapolis 55108] *Etheostoma microperca* in Minnesota.

FOODS/FEEDING (CONTINUED)

90-000653 Silva, E. I. L. and Ronald W. Davies. THE FEEDING OF *SAROTHERODON MOSSAMBICUS* (FAMILY: CICHLIDAE) WITH COMMENTS ON ITS COLONIZATION SUCCESS IN DRY ZONE MAN-MADE LAKES IN SRI LANKA. *Verh. Int. Ver. Limnol.* 23(3):1766-1769. 1988. FR 35(1)
[Dep. Biol. Sci., Univ. Calgary, Calgary, AB, Canada T2N 1N4]

90-000654 Timofeyev, S. F. THE EFFECT OF CAPELIN, *MALLOTUS VILLOSUS VILLOSUS* ON PLANKTON IN THE BARENTS SEA. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):154-155. 1988. FR 35(1)
[Murmansk Mar. Biol. Inst., Kol'skiy Branch AN USSR, MMBI, Dal'niye Zelentsy, USSR]

90-000655 Wahl, David H. and Roy A. Stein. COMPARATIVE VULNERABILITY OF THREE ESOCIDS TO LARGEMOUTH BASS (*MICROPTERUS SALMOIDES*) PREDATION. *Can. J. Fish. Aquat. Sci.* 46(12):2095-2103. 1989. In English with French summ. FR 35(1)
[Cent. Aquat. Ecol., Nat. Hist. Surv. & Dep. Ecol., Ethol., & Evol., Univ. Ill., 607 E. Peabody Dr., Champaign 61820] *Esox masquinongy, E. lucius* and their hybrids.

90-000656 Wasikiewicz, Dariusz. FOOD AND SEASONAL CHANGES IN THE FEEDING OF THE MINNOW (*PHOXINUS PHOXINUS* L.) FROM THE UPPER VISTULA (SOUTHERN POLAND). *Acta Hydrobiol.* 29(4):479-487. 1987. In English with Polish summ. FR 35(1)
[Jagiellonian Univ., Inst. Environ. Biol., Dep. Hydrobiol., ul. Oleandry 2a, 30-063 Krakow, Poland]

90-000657 Winemiller, Kirk O. ONTOGENETIC DIET SHIFTS AND RESOURCE PARTITIONING AMONG PISCIVOROUS FISHES IN THE VENEZUELAN LLANOS. *Environ. Biol. Fishes* 26(3):177-199. 1989. FR 35(1)
[Dep. Zool., Univ. Tex., Austin 78712] *Hoplias malabaricus, Charax gibbosus, Pygocentrus notatus, Gymnotus carapo, Serrasalmus irritans, S. medini, S. rhombeus, Rhamdia* sp., and *Caquetia kraussii.*

AGE AND GROWTH

90-000658 Agnalt, A.-L. LONG-TERM CHANGES IN GROWTH AND AGE AT MATURITY OF MACKEREL, *SCOMBER SCOMBRUS* L., FROM THE NORTH SEA. *J. Fish Biol.* 35(Suppl. A):305-311. 1989. FR 35(1)
[Dep. Fish. Biol., Univ. Bergen, P.O. Box 1839 Nordnes, N-5024 Bergen, Norway]

90-000659 Al-Absy, A. and A. Ajiad. THE MORPHOLOGY, BIOMETRY, WEIGHT-LENGTH RELATIONSHIP AND GROWTH OF THE GOATFISH *PARUPENEUS CINNABARINUS* (CUVIER & VALENCIENNES) IN THE GULF OF AQABA, RED SEA. *Arab Gulf J. Sci. Res. B* 6(2):265-273. 1988. From Ecol. Abstr. 89(6):89L/05784. 1989. FR 35(1)

90-000660 Al-Hossaini, M.; Q. Liu and T. J. Pitcher. OTOLITH MICROSTRUCTURE INDICATING GROWTH AND MORTALITY AMONG PLAICE, *PLEURONECTES PLATESSA* L., POST-LARVAL SUB-COHORTS. *J. Fish Biol.* 35(Suppl. A):81-90. 1989. FR 35(1)
[Maricult. & Fish. Dep., Kuwait Inst. Sci. Res., P.O. Box 1638, Salmyah, Kuwait 22017]

AGE AND GROWTH (CONTINUED)

90-000661 Boisclair, Daniel. AMONG-POPULATION VARIABILITY IN FISH GROWTH RATES: THE INFLUENCE OF FOOD CONSUMPTION, PREY TYPE AND FISH COMMUNITY. *Ph.D. dissertation, McGill Univ. (Canada)* 1989. From Diss. Abstr. Int. B Sci. Eng. 50(4):1195-1196. 1989. FR 35(1)
Perca flavescens.

90-000662 Bromley, P. J. EVIDENCE FOR DENSITY-DEPENDENT GROWTH IN NORTH SEA GADOIDS. *J. Fish Biol.* 35(Suppl. A):117-123. 1989. FR 35(1)
[MAFF, Dir. Fish. Res., Fish. Lab., Lowestoft, Suffolk NR33 0HT, England] *Gadus morhua, Merluccius bilinearis,* and *Melanogrammus aeglefinus.*

90-000663 Clay, D.; W. T. Stobo; B. Beck and P. C. F. Hurley. GROWTH OF JUVENILE POLLOCK (*POLLACHIUS VIRENS* L.) ALONG THE ATLANTIC COAST OF CANADA WITH INFERENCES OF INSHORE-OFFSHORE MOVEMENTS. *J. Northwest Atl. Fish. Sci.* 9(1):37-43. 1989. FR 35(1)
[Mar. Fish Div., Dep. Fish. & Oceans, Gulf Fish. Cent., P.O. Box 5030, Moncton, NB, Canada E1C 9B6]

90-000664 Gauldie, R. W.; I. F. West and N. M. Davies. K-SELECTION CHARACTERISTICS OF ORANGE ROUGHY (*HOPLOSTETHUS ATLANTICUS*) STOCKS IN NEW ZEALAND WATERS. *J. Appl. Ichthyol.* 5(3):127-140. 1989. In English with German and French summ. FR 35(1)
[Oceanic Biol., Inst. Geophysics, Univ. Hawaii, Honolulu 96822]

90-000665 King, Mark A. and Greg C. Garman. GROWTH OF CENTRARCHID FISHES IN THE JAMES RIVER: A PRELIMINARY REPORT. *Va. J. Sci.* 40(2):79. 1989. Abstract only. FR 35(1)
[Dep. Biol., Va. Commonwealth Univ., Richmond 23284] *Lepomis auritus* and *Micropterus dolomieui.*

90-000666 Lozan, Jose Luis. INVESTIGATION ON THE GROWTH OF DAB (*LIMANDA LIMANDA* L.) IN EIGHT AREAS OF THE NORTH SEA AND COMPARISONS WITH EARLIER FINDINGS. *Arch. Fischereiwiss.* 39(3):111-146. 1989. In English with Spanish and German summ. FR 35(1)
[Inst. Hydrobiol. & Fischereiwissenschaft, Univ. Hamburg, Olbersweg 24, D-2000 Hamburg 50, West Germany]

90-000667 Pedersen, Torstein and Malcolm Jobling. GROWTH RATES OF LARGE, SEXUALLY MATURE COD, *GADUS MORHUA,* IN RELATION TO CONDITION AND TEMPERATURE DURING AN ANNUAL CYCLE. *Aquaculture* 81(2):161-168. 1989. FR 35(1)
[Norges Fiskerihogskole, Univ. Tromso, N-9000 Tromso, Norway]

90-000668 Radtke, R. L.; T. E. Targett; A. Kellermann; J. L. Bell and K. T. Hill. ANTARCTIC FISH GROWTH: PROFILE OF *TREMATOMUS NEWNESI. Mar. Ecol. Prog. Ser.* 57(2):103-117. 1989. FR 35(1)
[Oceanic Biol., Hawaii Inst. Geophysics, Univ. Hawaii, Honolulu 96822]

90-000669 Radtke, Richard L. LARVAL FISH AGE, GROWTH, AND BODY SHRINKAGE: INFORMATION AVAILABLE FROM OTOLITHS. *Can. J. Fish. Aquat. Sci.* 46(11):1884-1894. 1989. In English with French summ. FR 35(1)
[Oceanic Biol., Inst. Geophysics, Univ. Hawaii, Honolulu 96822] *Gadus morhua.*

AGE AND GROWTH (CONTINUED)

90-000670 Schramm, Harold L., Jr. FORMATION OF ANNULI IN OTOLITHS OF BLUEGILLS. *Trans. Am. Fish. Soc.* 118(5):546-555. 1989. FR 35(1)
[Dep. Range & Wildl. Manage., Tex. Tech Univ., Lubbock 79409] *Lepomis macrochirus.*

90-000671 Sosa-Nishizaki, Oscar; Makoto Shimizu and Yukio Nose. THE POTENTIAL USE OF THE SECOND DORSAL FIN RAYS OF SKIPJACK TUNA *KATSUWONUS PELAMIS* AS AN AGING CHARACTER. *Nippon Suisan Gakkaishi* 55(9):1559-1564. 1989. In English with Japanese summ. FR 35(1)
[Dep. Fish., Fac. Agric., Univ. Tokyo, Yayoi, Bunkyo-ku, Tokyo 113, Japan]

90-000672 Terekhov, A. Yu. ASSESSING THE PARAMETERS OF THE GROWTH EQUATION FOR THE PACIFIC SAURY, *COLOLABIS SAIRA. J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):151-153. 1988. FR 35(1)

90-000673 Tsimenides, N. and G. Tserpes. AGE DETERMINATION AND GROWTH OF SWORDFISH *XIPHIAS GLADIUS* L., 1758 IN THE AEGEAN SEA. *Fish. Res. (Amst.)* 8(2):159-168. 1989. FR 35(1)
[Univ. Crete, Dep. Biol., Iraklion, Crete, Greece]

90-000674 Yabuki, Keizou. AGE DETERMINATION OF YANAGIMUSHIGAREI *TANAKIUS KITAHARAI* (PLEURONECTIDAE) FROM OTOLITHS IN THE SEA OF JAPAN OFF KYOTO PREFECTURE. *Nippon Suisan Gakkaishi* 55(8):1331-1338. 1989. In English with Japanese summ. FR 35(1)
[Hokkaido Regional Fish. Res. Lab., Kushiro 085, Japan]

GEOGRAPHICAL DISTRIBUTION, FISH SURVEYS, ETC.

90-000675 Acero P., Arturo and Jaime Garzon-Ferreira. [BONY FISHES OF THE SANTA MARTA REGION. II. THREE NEW RECORDS FOR THE SOUTH CARIBBEAN.] *Caribb. J. Sci.* 25(1-2):41-44. 1989. In Spanish with English summ. FR 35(1)
[Univ. Nac. Colombia (Inst. Cienc. Nat.), Apdo. 1016 (INVEMAR), Santa Marta, Colombia] *Gymnothorax hubbsi, Synodus saurus,* and *Parasphyraenops incisus.*

90-000676 Agafonova, T. B. NEW DATA ON THE TAXONOMY AND DISTRIBUTION OF CIGARFISHES (*CUBICEPS,* NOMEIDAE) OF THE INDIAN OCEAN. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):46-61. 1988. FR 35(1)
[All-Union Sci.-Res. Inst. Mar. Fish. & Oceanogr., VNIRO, Moscow, USSR] *C. macrolepis, C. nanus,* and *C. kotlyari.*

90-000677 Ahnelt, Harald. [*PROTERORHINUS MARMORATUS* (PALLAS); (PISCES: GOBIIDAE) - A POST-GLACIAL IMMIGRANT.] *Osterreichs Fischerei* 42(1):11-14. 1989. In German with English summ. FR 35(1)
[Zool. Abteilung, Naturhist. Mus. Wien, Burgring 7, Postfach 417, A-1014 Vienna, Austria]

90-000678 Anderson, M. Eric. RECORDS OF RARE EELPOUTS OF THE GENUS *LYCODAPUS* GILBERT IN THE NORTH AND SOUTHEASTERN PACIFIC OCEAN, WITH AN ADDITION TO THE CALIFORNIA MARINE FISH FAUNA. *Calif. Fish Game* 75(3):148-154. 1989. FR 35(1)
[Dep. Ichthyol., Acad. Sci., Golden Gate Park, San Francisco, CA 94118] *L. psarostomatus, L. microchir, L. endemoscotus, L. dermatinus,* and *L. fierasfer.*

GEOGRAPHICAL DISTRIBUTION, FISH SURVEYS, ETC. (CONTINUED)

90-000679 Arruda, L. M.; J. P. Andrade and M. M. Cunha. ABUNDANCE, DIVERSITY, AND COMMUNITY STRUCTURE OF THE FISH POPULATION IN THE RIA DE AVEIRO (PORTUGAL). *Oceanol. Acta* 11(3):235-240. 1988. From Ecol. Abstr. 89(6):89L/05844. 1989. FR 35(1)

90-000680 Bailey, Kevin. DESCRIPTION AND SURFACE DISTRIBUTION OF JUVENILE PERUVIAN JACK MACKEREL, *TRACHURUS MURPHYI* NICHOLS, FROM THE SUBTROPICAL CONVERGENCE ZONE OF THE CENTRAL SOUTH PACIFIC. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 87(2):273-278. 1989. FR 35(1)
[South Pac. Comm., Tuna & Billfish Assessment Programme, B.P. D5, Noumea Cedex, New Caledonia] *Thunnus alalunga.*

90-000681 Carlsen, Pam, compiler. TAGGING REPORT. *Underwater Nat.* 18(3):26-29. 1989. FR 35(1)
[Joe Sicluna, N.Y.H.D.E.C., SUNY, Bldg. 40, Stony Brook, NY 11794]

90-000682 Conkel, Don. CICHLIDS OF THE RICH COAST. *Trop. Fish Hobbyist* 38(2):94-100. 1989. FR 35(1)
Cichlasoma spp. in Costa Rica.

90-000683 Davis, P. S. and A. J. Edwards. NEW RECORDS OF FISHES FROM THE NORTHEAST COAST OF ENGLAND, WITH NOTES ON THE REDISCOVERY OF PART OF THE 'TYPE COLLECTION' OF MARINE FISHES FROM THE DOVE MARINE LABORATORY, CULLERCOATS. *Trans. Nat. Hist. Soc. Northumbria* No. 55. p. 39-46. 1988. From Ecol. Abstr. 89(6):89L/05771. 1989. FR 35(1)

90-000684 Gupta, S. K. ON THE FISH FAUNA OF BANDA DISTRICT. III. THE FISHES OF ZOOGEOGRAPHICAL SIGNIFICANCE AND A NOTE ON THE PALAEOGEOGRAPHY AND DISTRIBUTION OF FISHES. *Proc. Natl. Acad. Sci. India Sect. B (Biol. Sci.)* 57(4):371-376. 1987. From Ecol. Abstr. 89(5):89L/04586. 1989. FR 35(1)

90-000685 Jager, Paul and Ingrid Schillinger. [KOLLMANN'S FISH SPECIES OF SALZBURG, 1898.] *Osterreichs Fischerei* 41(10):202-209. 1988. In German. FR 35(1)
[Amt Salzburger Landeregierung, Michael-Pacher-Str. 36, A-5020 Salzburg, Austria]

90-000686 Kainz, Erich and Hans Peter Gollmann. [CONTRIBUTION TO THE DISTRIBUTION OF SOME SMALL-SIZED FISH SPECIES OF AUSTRIAN RUNNING WATERS: 2. STONE-LOACH (*NOEMACHEILUS BARBATULUS* L.).] *Osterreichs Fischerei* 42(10):240-245. 1989. In German with English summ. FR 35(1)
[Bundesanstalt Fischereiwirtschaft, Scharfling 18, A-5310 Mondsee, Austria]

90-000687 Kemp, Alain; Louis Bernatchez and Julian J. Dodson. A REVISION OF COREGONINE FISH DISTRIBUTION AND ABUNDANCE IN EASTERN JAMES-HUDSON BAY. *Environ. Biol. Fishes* 26(4):247-255. 1989. FR 35(1)
[Dep. Biol., Univ. Laval, Laval, PQ, Canada G1K 7P4] *Coregonus artedii* and *C. clupeaformis* in Canada.

90-000688 Marconi, Mario. FIRST RECORD OF *HEXANCHUS GRISEUS* (BONNATERRE) FROM SOMALIAN WATERS. *Atti Soc. Ital. Sci. Nat. Mus. Civ. Stor. Nat. Milano* 129(4):380-382. 1988. In English with Italian summ. FR 35(1)
[Mus. Ittico "A. Capriotti", Viale Colombo 98, 63039 San Benedetto del Tronto (Ascoli Piceno), Italy]

GEOGRAPHICAL DISTRIBUTION, FISH SURVEYS, ETC. (CONTINUED)

90-000689 Myers, Robert F. AN ANNOTATED CHECKLIST OF THE FISHES OF THE MARIANA ISLANDS. *Micronesica* 21(1-2):115-180. 1988. FR 35(1)
[P.O. Box 21153, GMF, Guam 96921]

90-000690 Nichol, Daniel G.; Neil T. Richmond and Ellen K. Pikitch. NORTHERN RANGE EXTENSION OF THE SPECKLED ROCKFISH, *SEBASTES OVALIS*. *Calif. Fish Game* 75(3):173. 1989. FR 35(1)
[Mark O. Hatfield Mar. Sci. Cent., Dep. Fish. & Wildl., Oreg. State Univ., Newport 97365]

90-000691 Parrish, R. H.; R. Serra and W. S. Grant. THE MONOTYPIC SARDINES, *SARDINA* AND *SARDINOPS*: THEIR TAXONOMY, DISTRIBUTION, STOCK STRUCTURE, AND ZOOGEOGRAPHY. *Can. J. Fish. Aquat. Sci.* 46(11):2019-2036. 1989. In English with French summ. FR 35(1)
[Pac. Fish. Environ. Group, Southwest Fish. Cent., NMFS, P.O. Box 831, Monterey, CA 93940]

90-000692 Podesta, Michela and Luca Magnaghi. [CATCH OF A BASKING SHARK, *CETORHINUS MAXIMUS* (GUNNER, 1765), IN THE LIGURIAN SEA (CHONDRICHTHYES CETORHINIDAE).] *Atti Soc. Ital. Sci. Nat. Mus. Civ. Stor. Nat. Milano* 129(4):453-458. 1988. In Italian with English summ. FR 35(1)
[Mus. Civico Storia Nat., Corso Venezia 55, 20121 Milan, Italy]

90-000693 Smith, P. J.; A. J. Birley and A. Jamieson. ELECTROPHORETIC STUDIES AND THE STOCK CONCEPT IN MARINE FISHES. *J. Fish Biol.* 35(Suppl. A):345-346. 1989. FR 35(1)
[Fish. Res. Cent., P.O. Box 297, Wellington, New Zealand] *Gadus morhua, Chrysophrys auratus, Clupea harengus,* and *Euthynnus pelamis*.

90-000694 Stephens, John S., Jr.; Michael Singer and Laura Targgart. NOTES ON THE FIRST RECORD OF THE ORANGETHROAT PIKEBLENNY, *CHAENOPSIS ALEPIDOTA* (GILBERT), IN MAINLAND CALIFORNIA. *Calif. Fish Game* 75(3):180-183. 1989. FR 35(1)
[Vantuna Res. Group, Occidental Coll., Los Angeles, CA 90041]

90-000695 Tamoykin, M. Yu. and A. R. Boltachev. NOTES ON THE GEOGRAPHIC DISTRIBUTION OF *MYCTOPHUM NITIDULUM* IN THE ATLANTIC OCEAN. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):1-7. 1988. FR 35(1)
[Inst. Biol. South. Seas, Acad. Sci. Ukrainian SSR, BYUM, Sevastopol, USSR]

90-000696 Trimm, David L. and T. Scott Searcy. OCCURRENCE OF BLACK SNAPPER, *APSILUS DENTATUS* IN THE GULF OF MEXICO. *Northeast Gulf Sci.* 10(2):157-158. 1989. FR 35(1)
[Parks & Wildl. Dep., Seabrook Mar. Lab., Seabrook, TX 77586]

90-000697 Trimm, David L.; George Guillen; Charles T. Menn and Gary C. Matlock. THE OCCURRENCE OF GRASS CARP IN TEXAS WATERS. *Tex. J. Sci.* 41(4):413-417. 1989. FR 35(1)
[Coastal Fish. Branch, Parks & Wildl. Dep., P.O. Box 8, Seabrook, TX 77586] *Ctenopharyngodon idella*.

90-000698 Zhang Shiyi. [ADDENDUM OF ANGUILLIFORMES FROM CHINA.] *Acta Zool. Sin.* 35(1):112. 1989. In Chinese. FR 35(1)
[Inst. Zool., Acad. Sinica, Beijing, China] *Acromycter nezumi, Gymnothorax permistus, Anarchias cantonensis,* and *A. fuscus*.

ABUNDANCE, FACTORS OF; SURVIVAL AND MORTALITY

90-000699 Palomera, I. and J. Lleonart. FIELD MORTALITY ESTIMATES OF ANCHOVY LARVAE, *ENGRAULIS ENCRASICOLUS*, IN THE WESTERN MEDITERRANEAN. *J. Fish Biol.* 35(Suppl. A):133-138. 1989. FR 35(1)
[Inst. Cienc. Mar, Ps. Nac., s/n., 08003 Barcelona, Spain]

90-000700 Post, John R. and David O. Evans. SIZE-DEPENDENT OVERWINTER MORTALITY OF YOUNG-OF-THE-YEAR YELLOW PERCH *(PERCA FLAVESCENS)*: LABORATORY, IN SITU ENCLOSURE, AND FIELD EXPERIMENTS. *Can. J. Fish. Aquat. Sci.* 46(11):1958-1968. 1989. In English with French summ. FR 35(1)
[Resour. Ecol., Univ. British Columbia, Vancouver, BC, Canada V6T 1W5]

90-000701 Siddeek, M. S. M. THE ESTIMATION OF NATURAL MORTALITY IN IRISH SEA PLAICE, *PLEURONECTES PLATESSA* L., USING TAGGING METHODS. *J. Fish Biol.* 35(Suppl. A):145-154. 1989. FR 35(1)
[Kuwait Inst. Sci. Res., Maricult. & Fish. Dep., P.O. Box 1638, 22017 Salmiya, Kuwait]

IDENTIFICATION, KEYS, CLASSIFICATION

90-000702 Anderson, M. Eric and Richard H. Rosenblatt. *PACIFICOGRAMMA STEPANENKOI* KHARIN, 1983 (FAMILY GRAMMATIDAE), A JUNIOR SYNONYM OF *PRONOTOGRAMMUS MULTIFASCIATUS* GILL, 1863 (FAMILY SERRANIDAE). *Calif. Fish Game* 75(2):124-125. 1989. FR 35(1)
[Dep. Ichthyol., Acad. Sci., Golden Gate Park, San Francisco, CA 94118]

90-000703 Anderson, William D., Jr., and Phillip C. Heemstra. *ELLERKELDIA*, A JUNIOR SYNONYM OF *HYPOPLECTRODES*, WITH REDESCRIPTIONS OF THE TYPE SPECIES OF THE GENERA (PISCES: SERRANIDAE: ANTHIINAE). *Proc. Biol. Soc. Wash.* 102(4):1001-1017. 1989. FR 35(1)
[Grice Mar. Biol. Lab., Coll. Charleston, 205 Fort Johnson, Charleston, SC 29412] *H. nigrorubrum* and *H. semicinctus*.

90-000704 Bath, Hans and Peter Wirtz. [*SPANIBLENNIUS CLANDESTINUS* N. G., N. SP. OF THE TRIBE BLENNIINI FROM WEST AFRICA AND DISCUSSION OF THE GENUS *BLENNIUS* (LINNAEUS 1758) (PISCES: BLENNIIDAE).] *Senckenb. Biol.* 69(4/6):277-291. 1989. In German with English summ. FR 35(1)
[Luisenstr. 45, D-6780 Pirmasens, West Germany]

90-000705 Bath, Hans. [A NEW SUBSPECIES OF *PARABLENNIUS TASMANIANUS* (RICHARDSON 1849) (PISCES: BLENNIIDAE).] *Senckenb. Biol.* 69(4/6):293-300. 1989. In German with English summ. FR 35(1)
[Luisenstr. 45, D-6780 Pirmasens, West Germany] *P. t. caladoniensis* in New Caledonia.

90-000706 Bieri, Robert. KROHNITTELLIDAE AND BATHYBELIDAE, NEW FAMILIES IN THE PHYLUM CHAETOGNATHA; THE REJECTION OF THE FAMILY TOKIOKAISPADELLIDAE AND THE GENERA *TOKIOKAISPADELLA, ZAHONYA,* AND *ABERROSPADELLA*. *Proc. Biol. Soc. Wash.* 102(4):973-976. 1989. FR 35(1)
[175 Brookside Dr., Yellow Springs, OH 45387]

IDENTIFICATION, KEYS, CLASSIFICATION (CONTINUED)

90-000707 Chang, Chang-hwa M. SYSTEMATICS OF THE CENTRARCHIDAE (PERCIFORMES: PERCOIDEI) WITH NOTES ON THE HAEMAL-ANAL-AXIAL CHARACTER COMPLEX. *Ph.D. dissertation, City Univ. N.Y.* 261p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1735. 1989. Order No. DA8915580. FR 35(1)
Micropterus, Lepomis, Enneacanthus, Acantharchus, Ambloplites, Archoplites, Centrarchus, and *Pomoxis.*

90-000708 Chernova, N. V. FISHES OF THE FAMILY LIPARIDIDAE OF THE BARENTS SEA AND ADJACENT WATERS. I. SPECIFIC COMPOSITION OF THE GENUS *LIPARIS. J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):62-67. 1988. FR 35(1)
[Murmansk Mar. Biol. Inst., Kol'skiy Sect. AN SSSR, MMBI, pos. Dal'niye Zelentsy, Murmansk Region, USSR] *L. koefoedi, L. liparis, L. montagui, L. gibbus, L. tunicatus,* and *L. fabricii.*

90-000709 Etnier, David A. and James D. Williams. *ETHEOSTOMA (NOTHONOTUS) WAPITI* (OSTEICHTHYES: PERCIDAE), A NEW DARTER FROM THE SOUTHERN BEND OF THE TENNESSEE RIVER SYSTEM IN ALABAMA AND TENNESSEE. *Proc. Biol. Soc. Wash.* 102(4):987-1000. 1989. FR 35(1)
[Dep. Zool., Univ. Tenn., Knoxville 37996-0810]

90-000710 Fedorov, V. V. and V. P. Foroshchuk. A NEW FLOUNDER, *PSETTINA MULTISQUAMEA* SP. NOVA, (BOTHIDAE) FROM SAYA-DE-MAL'YA BANK, INDIAN OCEAN. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):36-45. 1988. FR 35(1)
[Zool. Inst. AN SSSR, ZIN, Leningrad, "Yurybpromnazvedka," Kerch, USSR]

90-000711 Fricke, Ronald. NEW SPECIES AND NEW RECORDS OF *CALLIONYMUS* FROM THE PACIFIC OCEAN (TELEOSTEI: CALLIONYMIDAE). *Hydrobiologia* 183(1):47-57. 1989. FR 35(1)
[Staatliches Mus. Nat., Rosenstein 1, D-7000 Stuttgart 1, West Germany] *C. marquesensis, C. pleurostictus, C. delicatulus, C. simplicicornis,* and *C. obscurus.*

90-000712 Hardy, Graham S. DESCRIPTION OF A NEW SPECIES OF *TORQUIGENER* WHITLEY (PISCES: TETRAODONTIDAE) FROM SOUTH AFRICA, WITH A KEY TO THE GENUS. *Natl. Mus. N.Z. Rec.* 3(11):119-123. 1989. FR 35(1)
[Natl. Mus. New Zealand, P.O. Box 467, Wellington, New Zealand] *T. balteus.*

90-000713 Hensley, Dannie A. and Kunio Amaoka. A REDESCRIPTION OF *PSEUDORHOMBUS MEGALOPS,* WITH COMMENTS ON *CEPHALOPSETTA VENTROCELLATA* (OSTEICHTHYES: PLEURONECTIFORMES: PARALICHTHYIDAE). *Proc. Biol. Soc. Wash.* 102(3):577-585. 1989. FR 35(1)
[Dep. Mar. Sci., Univ. Puerto Rico, P.O. Box 5000, Mayaguez 00709-5000]

90-000714 Johnson, G. David and Edward B. Brothers. *ACANTHEMBLEMARIA PAULA,* A NEW DIMINUTIVE CHAENOPSID (PISCES: BLENNIOIDEI) FROM BELIZE, WITH COMMENTS ON LIFE HISTORY. *Proc. Biol. Soc. Wash.* 102(4):1018-1030. 1989. FR 35(1)
[Div. Fishes, Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC 20560]

90-000715 Maurakis, Eugene George. PHYLOGENETIC SYSTEMATICS OF THE SUBORDER CYPRINOIDEI AND THE TAXONOMIC STATUS OF THE NORTH AMERICAN GENUS *NOTROPIS* (PISCES: OSTARIOPHYSI). *Ph.D. dissertation, George Washington Univ.* 361p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(4):1283. 1989. Order No. DA8913310. FR 35(1)

IDENTIFICATION, KEYS, CLASSIFICATION (CONTINUED)

90-000716 Randall, John E. FIVE NEW WRASSES OF THE GENERA *CIRRHILABRUS* AND *PARACHEILINUS* (PERCIFORMES: LABRIDAE) FROM THE MARSHALL ISLANDS. *Micronesica* 21(1-2):199-226. 1988. FR 35(1)
[Bernice P. Bishop Mus., P.O. Box 19000-A, Honolulu, HI 96817-0916] *C. luteovittatus, C. balteatus, C. rhomboidalis, C. johnsoni,* and *P. bellae.*

90-000717 Skelton, Paul H. DESCRIPTIONS OF TWO NEW SPECIES OF WEST AFRICAN AMPHILIID CATFISHES (SILUROIDEI, AMPHILIIDAE). *J.L.B. Smith Inst. Ichthyol. Spec. Publ.* No. 48. 12p. 1989. FR 35(1)
[J.L.B. Smith Inst. Ichthyol., Private Bag 1015, Grahamstown 6140, South Africa] *Paramphilius teugelsi* and *Doumea thysi.*

90-000718 Turner, G. F.; T. J. Pitcher and A. S. Grimm. IDENTIFICATION OF THE LAKE MALAWI *OREOCHROMIS* (NYASALAPIA) SPP. USING MULTIVARIATE MORPHOMETRIC TECHNIQUES. *J. Fish Biol.* 35(6):799-812. 1989. FR 35(1)
[Fish & Fish. Group, School Biol. Sci., Univ. Wales, Bangor, Gwynedd LL57 2UW, Wales] *Tilapia karongae, T. lidole, T. saka,* and *T. squamipinnis.*

90-000719 Vari, Richard P. SYSTEMATICS OF THE NEOTROPICAL CHARACIFORM GENUS *PSEUDOCURIMATA* FERNANDEZ-YEPEZ (PISCES: OSTARIOPHYSI). *Smithson. Contrib. Zool.* No. 490. 28p. 1989. FR 35(1)
[Div. Fishes, Dep. Vertebr. Zool., Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC 20560] *P. patiae, P. lineopunctata, P. peruana, P. troschelii,* and *P. boehlkei* in South America.

90-000720 Vari, Richard P. SYSTEMATICS OF THE NEOTROPICAL CHARACIFORM GENUS *CURIMATA* BOSC (PISCES: CHARACIFORMES). *Smithson. Contrib. Zool.* No. 474. 1989. FR 35(1)
[Dep. Vertebr. Zool., Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC 20560]

90-000721 Vasil'eva, E. D. and V. P. Vasil'ev. STUDY OF THE INTRASPECIFIC STRUCTURE OF *SABANEJEWIA AURATA* (COBITIDAE) WITH DESCRIPTION OF A NEW SUBSPECIES, *S. AURATA KUBANICA. J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):15-35. 1988. FR 35(1)
[Zool. Mus., Moscow State Univ., IEMEZH, Moscow, USSR]

PARASITES AND DISEASES-GENERAL

90-000722 Ahne, W.; J. R. Winton and T. Kimura. PREVENTION OF INFECTIOUS DISEASES IN AQUACULTURE. *J. Vet. Med. Ser. B* 36(8):561-567. 1989. FR 35(1)
[Inst. Zool. & Hydrobiol., Univ. Munich, Kaulbachstr. 37, D-8000 Munich 22, West Germany]

90-000723 Cruz e Silva, M. P.; M. T. Ventura; M. S. Grazina-Freitas; A. M. Varela and M. Carvalho-Varela. RELATIONSHIP OF MANAGEMENT PRACTICES AND PATHOLOGY IN A PORTUGUESE EEL FARM. *An. Esc. Super. Med. Vet. (Lisb.)* 23-24:119-136. 1986/1987. In English with Portuguese and French summ. From Protozool. Abstr. 13(10):3231. 1989. FR 35(1)
[Lab. Nac. Invest. Vet., Estrada Benfica 701, 1500 Lisbon, Portugal] *Anguilla anguilla.*

PARASITES AND DISEASES-GENERAL (CONTINUED)

90-000724 Ermolenko, A. V. and T. E. Butorina. [THE PARASITE FAUNA OF *ONCORHYNCHUS MASOU* IN THE PRIMORSK TERRITORY.] *Parazitologiya (Leningr.)* 22(4):278-285. 1988. In Russian with English summ. From Protozool. Abstr. 13(10):3227. 1989. FR 35(1)
[Inst. Biol. & Pedol., Far-East. Sci. Cent., Acad. Sci. USSR, Vladivostok, USSR]

90-000725 Filatova, V. M. and O. P. Bagrova, editors. [NOTES FROM THE CONFERENCE ON FISH DISEASE & AQUATIC TOXICOLOGY.] *All Union Sci. Agency Fish Dis.* 277p. 1987. In Russian with English summ. FR 35(1)
Selected papers indexed in this issue of *Fisheries Review.*

90-000726 Griffin, B. R. JUDGEMENT AND RESTRAINT ARE NEEDED WHEN FISHERIES CHEMICALS ARE USED. *Aquacult. Mag.* 16(1):70-72. 1990. FR 35(1)
[Fish Farming Exp. Lab., U.S. Fish & Wildl. Serv., Stuttgart, AR 72160]

90-000727 Limansky, V. V.; I. S. Shesterin; G. K. Panina; D. F. Marauska and A. E. Keish. [ON POSSIBLE CAUSES OF GILL DISEASES OF CARP ON FISH FARMS IN LATVIA.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 203-208, 272. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

90-000728 Mamishev, I. G.; N. O. Spiranti and T. N. Chernova. [PARASITIC FAUNA OF THE TKIBOULI RESERVOIR.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 82-88, 267. 1987. In Russian with English summ. FR 35(1)

90-000729 McLean, E.; R. Ash and P. A. B. Westcott. THE APPEARANCE OF SOLUBLE ANTIGEN, HORSERADISH PEROXIDASE (HRP), IN TISSUES OF THE RAINBOW TROUT (*SALMO GAIRDNERI* RICHARDSON), SUBSEQUENT TO VARIABLE DIP-IMMERSION PROCEDURES. *Aquaculture* 79(1-4):411-415. 1989. FR 35(1)
[West Vancouver Lab., Dep. Fish. & Oceans, 4160 Marine Dr., West Vancouver, BC, Canada V7V 1N6]

90-000730 Meyer, Fred P. and Rosalie A. Schnick. A REVIEW OF CHEMICALS USED FOR THE CONTROL OF FISH DISEASES. *Rev. Aquat. Sci.* 1(4):693-710. 1989. FR 35(1)
[Natl. Fish. Res. Cent., U.S. Fish & Wildl. Serv., P.O. Box 818, La Crosse, WI 54602-0818]

90-000731 Michel, Christian. PATHOLOGY OF TILAPIAS. *Aquat. Living Resour.* 2(2):117-126. 1989. In English with French summ. FR 35(1)
[INRA, Lab. Ichthyopathol., Stn. Virol. & Immunol., 78850 Thiverval-Grignon, France]
Tilapia.

90-000732 Mitenev, V. K. [PARASITIC FAUNA OF FISHES IN THE LAKES OF THE MURMAN AREA.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 98-109, 268. 1987. In Russian with English summ. FR 35(1)

90-000733 Odening, K. NEW TRENDS IN PARASITIC INFECTIONS OF CULTURED FRESHWATER FISH. *Vet. Parasitol.* 32(1):73-100. 1989. From Protozool. Abstr. 13(9):2843. 1989. FR 35(1)
[Inst. Vertebr. Res. Acad. Sci. GDR, Am Tierpark 125, DDR-1136 Berlin, East Germany]
Data for 11 species.

PARASITES AND DISEASES-GENERAL (CONTINUED)

90-000134 Okaeme, A. N. and P. Otobo. PARASITES AND DISEASES OF FERAL ORFOCHROMIS NILOTICUS, SEROTHERODON GALILAEUS AND CLARIAS SP. OF LAKE KAINJI. Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep. 1988. p. 41-44. 1989. FR 35(1)

90-000135 Okaeme, A. N., A. Ogunrinde and P. Otobo. DISEASE INVESTIGATION AND ANALYSIS OF CULTURED ORFOCHROMIS NILOTICUS, SEROTHERODON GALILAEUS AND CLARIAS SP. AT THE NATIONAL INSTITUTE FOR FRESHWATER FISHERIES RESEARCH. Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep. 1988. p. 45-48. 1989. FR 35(1)

90-000136 Schnick, Rosalie A. STATUS OF DEVELOPMENT AND APPROVAL OF PRIORITY AQUACULTURE DRUGS. In: Proceedings from the Fourth IR-4/FDA Workshop for the Minor Uses of New Animal Drugs. p. 115-122. 1989. FR 35(1)
[U.S. Fish & Wildl. Serv., Natl. Fish. Res. Cent., P.O. Box 818, La Crosse, WI 54602-0818]

90-000137 Schnick, Rosalie A. AQUACULTURE SESSION REPORT. In: Proceedings from the Fourth IR-4/FDA Workshop for the Minor Uses of New Animal Drugs. p. 106-112. 1989. FR 35(1)
[U.S. Fish & Wildl. Serv., Natl. Fish. Res. Cent., P.O. Box 818, La Crosse, WI 54602-0818]

90-000138 Shtyrmer, B. S. and V. K. Vitenev. [ECOLOGICAL AND FAUNISTIC ANALYSIS OF FISH PARASITES IN THE BASIN OF TOLIOMA.] In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors. p. 88-98, 268. 1987. In Russian with English summ. FR 35(1)

90-000139 Vyatova, G. P. [HEMATOLOGICAL INDICES OF YOUNG CHUM SALMON DURING THE ALIMENTARY DISEASE.] In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors. p. 122-129, 269. 1987. In Russian with English summ. FR 35(1)
Oncorhynchus keta.

BACTERIAL DISEASES

90-000140 Armstrong, Robert D., S. Wayne Martin, Trevor P. T. Evelyn; Brad Hicks; William J. Dorward and Hugh W. Ferguson. A FIELD EVALUATION OF AN INDIRECT FLUORESCENT ANTIBODY BASED BROODSTOCK SCREENING TEST USED TO CONTROL THE VERTICAL TRANSMISSION OF *RENIBACTERIUM SALMONINARUM* IN CHINOOK SALMON (*ONCORHYNCHUS TSHAWYTSCHA*). Can. J. Vet. Res. 53(4): 385-388. 1989. In English with French summ. FR 35(1)
[Dep. Pathol., Ontario Vet. Coll., Univ. Guelph, Guelph, ON, Canada N1G 2W1]

90-000141 Brown, D. W. and A. L. S. Munro. IMMUNITY IN ATLANTIC SALMON, *SALMO SALAR* L., FRY FOLLOWING VACCINATION AGAINST *YERSINIA RUCKERI*, AND THE INFLUENCE OF BODY WEIGHT AND INFECTIOUS PANCREATIC NECROSIS VIRUS (IPNV) ON THE DETECTION OF CARRIERS. Aquaculture 81(3/4): 206-211. 1989. FR 35(1)
[Dep. Agric. & Fish. Scotland, Mar. Lab., Victoria Rd., Aberdeen AB9 8DB, Scotland]

BACTERIAL DISEASES (CONTINUED)

90-000742 Chen, Martin F. and Marsha E. Kumlin. ENTERIC SEPTICEMIA OF CHANNEL CATFISH IN CALIFORNIA. *Calif. Fish Game* 75(3):141-147. 1989. FR 35(1)
[Fish Dis. Unit, Dep. Fish & Game, P.O. Box 938, Victorville, CA 92393] *Ictalurus punctatus.*

90-000743 Cipriano, Rocco C. and Anicet R. Blanch. DIFFERENT STRUCTURAL CHARACTERISTICS IN THE CELL ENVELOPE OF THE FISH PATHOGEN *AEROMONAS SALMONICIDA. Microbios Lett.* 40:87-95. 1989. FR 35(1)
[U.S. Fish & Wildl. Serv., Natl. Fish Health Res. Lab., Box 700, Kearneysville, WV 25430]

90-000744 Hamaguchi, Masami; Takushi Tanaka and Riichi Kusuda. [PREPARATION OF NEUTROPHILS AND MACROPHAGES WITH PERITONEAL EXUDATE CELLS IN YELLOWTAIL *SERIOLA QUINQUERADIATA.*] *Nippon Suisan Gakkaishi* 55(9):1511-1515. 1989. In Japanese with English summ. FR 35(1)
[Fish. Dis. Lab., Fac. Agric., Kochi Univ., Nankoku, Kochi 783, Japan]

90-000745 Hashimoto, Shinichi; Aiichiro Muraoka and Riichi Kusuda. [EFFECTS OF CARBOHYDRATES, AMINO ACIDS, VITAMINS, INORGANIC SALTS AND PEPTONES ON THE GROWTH OF *PASTEURELLA PISCICIDA.*] *Nippon Suisan Gakkaishi* 55(10):1791-1797. 1989. In Japanese with English summ. FR 35(1)
[Biomed. Res. Lab., Earth Chemical Co., Ltd., Ako, Hyogo 678-01, Japan] *Seriola quinqueradiata.*

90-000746 Kakhovsky, A. E. [DISTRIBUTION OF SAPROTROPH BACTERIA OF THE GENERA *AEROMONAS* AND *PSEUDOMONAS* IN FISH POND AREA.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 21-30, 265. 1987. In Russian with English summ. FR 35(1)

90-000747 Ninomiya, Manabu; Aiichiro Muraoka and Riichi Kusuda. [EFFECT OF IMMERSION VACCINATION OF CULTURED YELLOWTAIL WITH A RIBOSOMAL VACCINE PREPARED FROM *PASTEURELLA PISCICIDA.*] *Nippon Suisan Gakkaishi* 55(10):1773-1776. 1989. In Japanese with English summ. FR 35(1)
[Fish Dis. Lab., Fac. Agric., Kochi Univ., Nankoku, Kochi 783, Japan] *Seriola quinqueradiata.*

90-000748 Ogbondeminu, F. S. MICROBIOLOGICAL STUDIES OF AQUACULTURAL SYSTEMS IN KAINJI LAKE AREA: I: PRELIMINARY INVESTIGATION INTO BACTERIAL LOADS OF SOME OUTDOOR FISH PONDS AND THE AGRICULTURAL WASTES USED AS FEED. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 210-216. 1989. FR 35(1)

90-000749 Ogbondeminu, F. S. and C. T. Madu. MICROBIOLOGICAL STUDIES OF AQUACULTURAL SYSTEMS IN KAINJI LAKE AREA: II: PRELIMINARY STUDIES ON BACTERIAL MICROFLORA ASSOCIATED WITH THE FARMED *CLARIAS* IN NIFFR/DFRRI HATCHERY COMPLEX AT DIFFERENT STAGES OF FISH DEVELOPMENT. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 217-223. 1989. FR 35(1)

90-000750 Starliper, Clifford E.; Stevan R. Phelps and William B. Schill. GENETIC RELATEDNESS OF *VIBRIO ANGUILLARUM* AND *VIBRIO ORDALII. Microbios Lett.* 40:25-30. 1989. FR 35(1)

BACTERIAL DISEASES (CONTINUED)

90-000750 CONTINUED
[U.S. Fish & Wildl. Serv., Natl. Fish Health Res. Lab., Box 700, Kearneysville, WV 25430]

90-000751 Toranzo, A. E.; A. M. Baya; J. L. Romalde and F. M. Hetrick. ASSOCIATION OF *AEROMONAS SOBRIA* WITH MORTALITIES OF ADULT GIZZARD SHAD, *DOROSOMA CEPEDIANUM* LESUEUR. *J. Fish Dis.* 12(5):439-448. 1989. FR 35(1)
[Dep. Microbiol. & Parasitol., Univ. Santiago, Santiago de Compostela 15706, Spain]

90-000752 Tsoumas, A.; D. J. Alderman and C. J. Rodgers. *AEROMONAS SALMONICIDA*: DEVELOPMENT OF RESISTANCE TO 4-QUINOLONE ANTIMICROBIALS. *J. Fish Dis.* 12(5):493-507. 1989. FR 35(1)
[Alderman: MAFF, Fish Dis. Lab., The Nothe, Weymouth, Dorset DT4 8UB, England]

90-000753 Turnbull, J. F.; R. H. Richards and M. F. Tatner. EVIDENCE THAT SUPERFICIAL BRANCHIAL COLONIES ON THE GILLS OF *SALMO SALAR* L. ARE NOT *AEROMONAS SALMONICIDA*. *J. Fish Dis.* 12(5):449-458. 1989. FR 35(1)
[Inst. Aquacult., Univ. Stirling, Stirling FK9 4LA, Scotland]

90-000754 Victorova, V. F. and L. N. Youkhimenko. [PHYSIOLOGICAL AND BIOCHEMICAL CHARACTERISTICS OF MOTILE AEROMONADS.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 31-37, 265. 1987. In Russian with English summ. FR 35(1)

90-000755 Yano, Tomoki; Remy E. P. Mangindaan and Hiroko Matsuyama. ENHANCEMENT OF THE RESISTANCE OF CARP *CYPRINUS CARPIO* TO EXPERIMENTAL *EDWARDSIELLA TARDA* INFECTION, BY SOME β-1, 3-GLUCANS. *Nippon Suisan Gakkaishi* 55(10):1815-1819. 1989. In English. FR 35(1)
[Lab. Fish. Chem., Fac. Agric., Kyushu Univ., Fukuoka 812, Japan]

90-000756 Youkhimenko, L. N.; V. F. Victorova and V. I. Fedorchenko. [AEROMONAD ISOLATION FROM FISH POND WATER.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 37-46, 265. 1987. In Russian with English summ. FR 35(1)

FUNGAL DISEASES

90-000757 Isaeva, N. M. and O. N. Davydov. [MYCOSES OF FISH (A REVIEW).] *Gidrobiol. Zh.* 25(2):77-83. 1989. In Russian with English summ. FR 35(1)

PROTOZOAN DISEASES

90-000758 Afanas'ev, V. I.; M. I. Vlasenko; N. I. Rudikov; L. G. Morozova and L. I. Grishchenko. [AETIOLOGY AND EPIZOOTIOLOGY OF INFLAMMATION OF THE SWIM BLADDER OF CARP.] *Veterinariya (Moscow)* No. 6. p. 34-36. 1989. In Russian with English summ. From Protozool. Abstr. 13(11):3620. 1989. FR 35(1)
[Vsesoyuznyi Inst. Eksper. Vet., Moscow, USSR] *Cyprinus carpio.*

PROTOZOAN DISEASES (CONTINUED)

90-000759 Alvarez-Pellitero, P. *MYXIDIUM RHODEI* (PROTOZOA: MYXOZOA: MYXOSPOREA) IN CYPRINID FISH FROM N.W. SPAIN. *Dis. Aquat. Org.* 7(1):13-16. 1989. FR 35(1)
[Inst. Acuicult. Torre de la Sal, CSIC, Castellon, Spain] *Leuciscus cephalus cabeda* and *Chondrostoma polylepis*.

90-000760 Bartholomew, J. L.; C. E. Smith; J. S. Rohovec and J. L. Fryer. CHARACTERIZATION OF A HOST RESPONSE TO THE MYXOSPOREAN PARASITE, *CERATOMYXA SHASTA* (NOBLE), BY HISTOLOGY, SCANNING ELECTRON MICROSCOPY AND IMMUNOLOGICAL TECHNIQUES. *J. Fish Dis.* 12(5):509-522. 1989. FR 35(1)
[Rohovec: Dep. Microbiol., Oreg. State Univ., Corvallis 97331-3804] *Oncorhynchus mykiss*.

90-000761 Bartholomew, Jerri Lee. DEVELOPMENT OF MONOCLONAL ANTIBODIES AGAINST THE MYXOSPOREAN, *CERATOMYXA SHASTA*, AND CHARACTERIZATION OF THE SALMONID HOST RESPONSE. *Ph.D. dissertation, Oreg. State Univ.* 191p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(5):1710. 1989. Order No. DA8918656. FR 35(1)
Oncorhynchus mykiss.

90-000762 Chepournaya, A. G. [SOME PECULIARITIES OF *MYXOBOLUS PAVLOSKII* BIOLOGY IN BIGHEAD.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 75-79, 267. 1987. In Russian with English summ. FR 35(1)
Aristichthys nobilis.

90-000763 Griffin, B. R. SCREENING OF CHEMICALS TO CONTROL PROTOZOAN PARASITES OF FISH. *Prog. Fish-Cult.* 51(3):127-132. 1989. FR 35(1)
[U.S. Fish & Wildl. Serv., Fish Farming Exp. Lab., P.O. Box 860, Stuttgart, AR 72160] *Notemigonus crysoleucas*.

90-000764 Jastrzebski, M. [SPECIES OF FISH COCCIDIA NEW FOR POLAND.] *Wiad. Parazytol.* 30(2):165-170. 1984. In Polish with English summ. From Protozool. Abstr. 13(11):3617. 1989. FR 35(1)
[Dep. Parasitol. & Parasitic Dis., Vet. Fac., Agric. Univ., Warsaw, Poland] *Esox lucius* and *Anguilla anguilla*.

90-000765 Jastrzebski, M. [POLYMORPHISM IN *TRYPANOSOMA* FROM THE BLOOD OF *CARASSIUS AURATUS GIBELIO, PERCA FLUVIATILIS* AND *ACERINA CERNUA*.] *Wiad. Parazytol.* 30(2):169-181. 1984. In Polish with English summ. From Protozool. Abstr. 13(11):3618. 1989. FR 35(1)
[Dep. Parasitol. & Parasitic Dis., Vet. Fac., Agric. Univ., Warsaw, Poland]

90-000766 Jastrzebski, M. COCCIDIOFAUNA OF CULTURED AND FERAL FISHES IN FISH FARMS. *Wiad. Parazytol.* 30(2):141-163. 1984. In English with Polish summ. From Protozool. Abstr. 13(11):3634. 1989. FR 35(1)
[Dep. Parasitol. & Parasitic Dis., Vet. Fac., Agric. Univ., Warsaw, Poland] Data for 10 species in Poland.

90-000767 Molnar, Kalman. NODULAR AND EPICELLULAR COCCIDIOSIS IN THE INTESTINE OF CYPRINID FISHES. *Dis. Aquat. Org.* 7(1):1-12. 1989. FR 35(1)
[Vet. Med. Res. Inst., Hungarian Acad. Sci., P.O. Box 18, H-1581 Budapest, Hungary] *Blicca bjoerkna* in Hungary.

PROTOZOAN DISEASES (CONTINUED)

90-000768 Okaeme, A. N.; A. Obiekezie; P. Okojie and J. Agbontale. HISTOPATHOLOGY OF NORMAL AND INFECTED ORGANS OF TILAPIA BY *MYXOBOLUS OVARIAE*. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 37-39. 1989. FR 35(1)
Tilapia nilotica and *T. galilaea*.

90-000769 Penali, L. K.; G. M. Gershy-Damet; A. Sangare; S. A. Ouattara; A. Cisse; H. Faye; M. Dosso; N. G. Assale and A. K. Adjetey. [THE PARASITES OF FISH COMMONLY EATEN IN THE IVORY COAST.] *Bull. Soc. Pathol. Exot. Filiales* 81(5):877-880. 1988. In French with English summ. From Protozool. Abstr. 13(9):2840. 1989. FR 35(1)
[Unite Parasitol. & Mycol., Inst. Pasteur, 01 B.P. 490, Abidjan 01, Ivory Coast] *Tilapia nilotica, T. guineensis, T. melanotheron, Chrysichthys walkeri,* and *C. nigrodigitatus*.

90-000770 Roubal, F. R.; R. J. G. Lester and C. K. Foster. STUDIES ON CULTURED AND GILL-ATTACHED *PARAMOEBA* SP. (GYMNAMOEBAE: PARAMOEBIDAE) AND THE CYTOPATHOLOGY OF PARAMOEBIC GILL DISEASE IN ATLANTIC SALMON, *SALMO SALAR* L., FROM TASMANIA. *J. Fish Dis.* 12(5):481-492. 1989. FR 35(1)
[Dep. Parasitol., Univ. Queensland, Brisbane, Qld. 4067, Australia]

VIRAL DISEASES

90-000771 Eaton, William D.; William H. Wingfield and Ronald P. Hedrick. PREVALENCE AND EXPERIMENTAL TRANSMISSION OF THE STEELHEAD HERPESVIRUS IN SALMONID FISHES. *Dis. Aquat. Org.* 7(1):23-30. 1989. FR 35(1)
[Juneau Cent. Fish. & Ocean Sci., Univ. Alaska, 11120 Glacier Hwy., Juneau 99801] *Oncorhynchus mykiss* in California.

90-000772 Frerichs, G. N. STABILITY OF SNAKEHEAD (*OPHIOCEPHALUS STRIATUS*) RHABDOVIRUS UNDER DIFFERENT ENVIRONMENTAL CONDITIONS. *J. Appl. Ichthyol.* 5(3):122-126. 1989. In English with French and German summ. FR 35(1)
[Inst. Aquacult., Univ. Stirling, Stirling, Scotland]

90-000773 Isshiki, Tadashi; Kenji Kawai and Riichi Kusuda. [CHANGE IN INCIDENCE OF YELLOWTAIL ASCITES VIRUS (YAV) AND ANTI-YAV NEUTRALIZING ANTIBODY IN NET-PEN CULTURED YELLOWTAIL *SERIOLA QUINQUERADIATA*.] *Nippon Suisan Gakkaishi* 55(8):1305-1310. 1989. In Japanese with English summ. FR 35(1)
[Fish Dis. Lab., Fac. Agric., Kochi Univ., Nankoku, Kochi 783, Japan]

90-000774 Schelkunov, I. S.; E. K. Skurat; V. A. Sivolotskaya; K. V. Sapotko; V. V. Shimko and V. Ya. Linnik. [*RHABDOVIRUS ANGUILLA* IN EEL IN THE USSR AND ITS PATHOGENICITY FOR FISH.] *Vopr. Virusol.* 1989(1):81-84. 1989. In Russian with English summ. FR 35(1)
Anguilla anguilla.

90-000775 Schultz, C. L.; P. E. McAllister; W. B. Schill; B. C. Lidgerding and F. M. Hetrick. DETECTION OF INFECTIOUS HEMATOPOIETIC NECROSIS VIRUS IN CELL CULTURE FLUID USING IMMUNOBLOT ASSAY AND BIOTINYLATED MONOCLONAL ANTIBODY. *Dis. Aquat. Org.* 7(1):31-37. 1989. FR 35(1)
[McAllister: U.S. Fish & Wildl. Serv., Natl. Fish Health Res. Lab., Box 700, Kearneysville, WV 25430] *Oncorhynchus mykiss* and *O. tshawytscha*.

VIRAL DISEASES (CONTINUED)

90-000776 Shchelkounov, I. S. [CARP IRIDOVIRUS: STUDY IN CELL CULTURES AND IN VARIOUS FISH SPECIES.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 11-16, 264. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

90-000777 Shchelkounova, T. I. and I. S. Shchelkounov. [*RHABDOVIRUS CARPIO* IN HERBIVOROUS FISHES (ISOLATION, IDENTIFICATION, PATHOGENICITY).] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 3-11, 264. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio and *Aristichthys nobilis.*

90-000778 Temnikhanov, Yu. D. and V. V. Litvinenko. [IDENTIFICATION OF FISH RHABDOVIRUSES WITH NEUTRALIZATION REACTION BY PLAQUE METHOD.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 16-20, 264. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio and *Ictiobus cyprinellus.*

OTHER DISEASES AND PARASITES

90-000779 Alarcon-Gonzalez, C. [DIAGNOSIS AND IDENTIFICATION OF A HELMINTH PARASITOSIS IN *CARASSIUS CARASSIUS* AT A FISH FARMING CENTRE.] *Rev. Latinoam. Microbiol.* 30(3):297-298. 1988. In Spanish with English summ. From Helminthol. Abstr. Ser. A Anim. Human Helminthol. 58(11):3558. 1989. FR 35(1)

90-000780 Anokhin, Yu. L. [*DACTYLOGYRUS VASTATOR* EFFECT ON CARP FRY GROWTH.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 56-59, 266. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

90-000781 Belpaire, C.; D. de Charleroy; K. Thomas; P. van Damme and F. Ollevier. EFFECTS OF EEL RESTOCKING ON THE DISTRIBUTION OF THE SWIMBLADDER NEMATODE *ANGUILLICOLA CRASSUS* IN FLANDERS, BELGIUM. *J. Appl. Ichthyol.* 5(3):151-153. 1989. In English with German and French summ. FR 35(1)
[Zool. Inst., Lab. Ecol. & Aquacult., Naamsestr. 59, B-3000 Leuven, Belgium] *Anguilla anguilla.*

90-000782 Bilong-Bilong, C. F.; E. Birgi and A. Lambert. [*ENTEROGYRUS MELENENSIS* SP. NOV. (MONOGENEA, ANCYROCEPHALIDAE), A PARASITE OF THE STOMACH OF *HEMICHROMIS FASCIATUS* IN SOUTHERN CAMEROON.] *Rev. Zool. Africaine* 103(1):99-105. 1989. In French with English summ. From Helminthol. Abstr. Ser. A Anim. Human Helminthol. 58(11):3584. 1989. FR 35(1)

90-000783 Bruce, Niel L. and Lester R. G. Cannon. *HYSTEROTHYLACIUM, IHERINGASCARIS* AND *MARICOSTULA* NEW GENUS, NEMATODES (ASCARIDOIDEA) FROM AUSTRALIAN PELAGIC MARINE FISHES. *J. Nat. Hist.* 23(6):1397-1441. 1989. FR 35(1)
[Queensland Mus., P.O. Box 300, South Brisbane, Qld. 4101, Australia] Data for 13 species.

OTHER DISEASES AND PARASITES (CONTINUED)

90-000784 Callinan, R. B.; G. C. Fraser and J. L. Virgona. PATHOLOGY OF RED SPOT DISEASE IN SEA MULLET, *MUGIL CEPAHLUS* L., FROM EASTERN AUSTRALIA. *J. Fish Dis.* 12(5):467-479. 1989. FR 35(1)
[Regional Vet. Lab., North Coast Agric. Inst., Wollongbar, N.S.W. 2480, Australia]

90-000785 de Charleroy, D.; K. Thomas; C. Belpaire and F. Ollevier. THE VIABILITY OF THE FREE LIVING LARVAE OF *ANGUILLICOLA CRASSUS*. *J. Appl. Ichthyol.* 5(3):154-156. 1989. In English with German and French summ. FR 35(1)
[Zool. Inst., Lab. Ecol. & Aquacult., Naamsestr. 59, B-3000 Leuven, Belgium] *Anguilla anguilla.*

90-000786 Demaree, Richard S., Jr. STUDIES ON THE ECOLOGY AND EXTERNAL MORPHOLOGY OF *LERNAEA CYPRINACEA* LINNAEUS OF VIGO COUNTY, INDIANA. *M.S. thesis, Indiana State Univ.* 39p. 1966. FR 35(1)
Data for 16 species.

90-000787 des Clers, S. MODELLING REGIONAL DIFFERENCES IN 'SEALWORM', *PSEUDOTERRANOVA DECIPIENS* (NEMATODA, ASCARIDOIDEA), INFECTIONS IN SOME NORTH ATLANTIC COD, *GADUS MORHUA*, STOCKS. *J. Fish Biol.* 35(Suppl. A):187-192. 1989. FR 35(1)
[Renewable Resour. Assess. Group, & Parasite Ecol. Res. Group, Imperial Coll. Sci., Technol. & Med., 8 Prince's Gardens, London SW7 1NA, England]

90-000788 Down, N. E. and J. F. Leatherland. HISTOPATHOLOGY OF GONADAL NEOPLASMS IN CYPRINID FISH FROM THE LOWER GREAT LAKES OF NORTH AMERICA. *J. Fish Dis.* 12(5):415-437. 1989. FR 35(1)
[Leatherland: Dep. Zool., Univ. Guelph, Guelph, ON, Canada N1G 2W1] *Cyprinus carpio* and *Carassius auratus.*

90-000789 Golovin, P. P. [*DACTYLOGYRUS VASTATOR* EFFECT ON FISHCULTURAL INDICES OF YOUNG CARP IN PONDS.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 65-75, 266-267. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

90-000790 Golovina, N. A.; P. P. Golovin and V. F. Vanyatinsky. [ON DIAGNOSTICS OF CARP DACTYLOGYROSIS.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 47-56, 265-266. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

90-000791 Hogans, W. E. MORTALITY OF CULTURED ATLANTIC SALMON, *SALMO SALAR* L., PARR CAUSED BY AN INFECTION OF *ERGASILUS LABRACIS* (COPEPODA: POECILOSTOMATOIDA) IN THE LOWER SAINT JOHN RIVER, NEW BRUNSWICK, CANADA. *J. Fish Dis.* 12(5):529-531. 1989. FR 35(1)
[Atlantic Reference Cent., Huntsman Mar. Sci. Cent., Brandy Cove Rd., St. Andrews, NB, Canada E0G 2X0]

90-000792 Kearn, G. C. and R. Gowing. GLANDS AND SENSILLA ASSOCIATED WITH THE HAPTOR OF THE GILL-PARASITIC MONOGENEAN *TETRAONCHUS MONENTERON*. *Int. J. Parasitol.* 19(6):673-679. 1989. FR 35(1)
[School Biol. Sci., Univ. East Anglia, Norwich NR4 7TJ, England] *Esox lucius* in England.

OTHER DISEASES AND PARASITES (CONTINUED)

90-000793 Marchenko, A. M. [EXPERIMENTAL GAFF DISEASE.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 130-138, 269. 1987. In Russian with English summ. FR 35(1)

90-000794 Mayama, Hiroshi. SEASONAL CHANGES IN THE INFECTION OF *ACANTHOCEPHALUS* SP. (ACANTHOCEPHALA) IN JUVENILE MASU SALMON *ONCORHYNCHUS MASOU*. *Nippon Suisan Gakkaishi* 55(9):1517-1522. 1989. In English with Japanese summ. FR 35(1)
[Hokkaido Salmon Hatchery, Nakanoshima, Toyohira, Sapporo, Hokkaido 062, Japan]

90-000795 Munro, M. A.; P. J. Whitfield and R. Diffley. *POMPHORHYNCHUS LAEVIS* (MULLER) IN THE FLOUNDER, *PLATICHTHYS FLESUS* L., IN THE TIDAL RIVER THAMES: POPULATION STRUCTURE, MICROHABITAT UTILIZATION AND REPRODUCTIVE STATUS IN THE FIELD AND UNDER CONDITIONS OF CONTROLLED SALINITY. *J. Fish Biol.* 35(5):719-735. 1989. FR 35(1)
[Parasitol. & Pest Biol. Res. Group, King's Coll. London, Univ. London, Campden Hill Rd., London W8 7AH, England]

90-000796 Oliva, Marcelo E. and Jose L. Luque. FOUR NEW SPECIES OF *HARGICOTYLE* MAMAEV, 1972 (DICLIDOPHORIDAE) PARASITES ON SCIAENID FISHES FROM PERU AND CHILE. *J. Nat. Hist.* 23(6):1387-1395. 1989. FR 35(1)
[Lab. Parasitol., Fac. Cienc. Biol., Univ. Ricardo Palma, P.O. Box 138, Lima 18, Peru] *Sciaena fasciata, S. deliciosa,* and *Paralonchurus peruanus.*

90-000797 Oliva, Marcelo E. and Jose L. Luque. THE GENUS *LOBATOSTOMA* (TREMATODA: ASPIDOCOTYLEA) IN THE PACIFIC COAST OF SOUTH AMERICA, WITH DESCRIPTION OF *LOBATOSTOMA VERANOI* NEW SPECIES, PARASITE OF *MENTICIRRHUS OPHICEPHALUS* (TELEOSTEI: SCIAENIDAE). *Mem. Inst. Oswaldo Cruz Rio De J.* 84(2):167-170. 1989. FR 35(1)
[Lab. Parasitol., Fac. Cienc. Biol., Univ. Ricardo Palma, Apdo. 138, Lima 18, Peru] *Trachinotus paitensis* and *Anisotremus scapularis* in Peru and Chile.

90-000798 Sanmartin Duran, M. L.; P. Quinteiro and F. M. Ubeira. NEMATODE PARASITES OF COMMERCIALLY IMPORTANT FISH IN N.W. SPAIN. *Dis. Aquat. Org.* 7(1):75-77. 1989. FR 35(1)
[Dep. Microbiol. & Parasitol., Catedra Parasitol., Fac. Farmacia, Univ. Santiago Compostela, Santiago, Spain] Data for 12 species.

90-000799 Shariff, M. and R. J. Roberts. THE EXPERIMENTAL HISTOPATHOLOGY OF *LERNAEA POLYMORPHA* YU, 1938 INFECTION IN NAIVE *ARISTICHTHYS NOBILIS* (RICHARDSON) AND A COMPARISON WITH THE LESION IN NATURALLY INFECTED CLINICALLY RESISTANT FISH. *J. Fish Dis.* 12(5):405-414. 1989. FR 35(1)
[Fac. Fish. & Mar. Sci., Univ. Pertanian Malaysia, 43400 UPM Serdang, Darul Ehsan, Malaysia]

90-000800 Sharp, G. J. E.; A. W. Pike and C. J. Secombes. THE IMMUNE RESPONSE OF WILD RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON, TO NATURALLY ACQUIRED PLEROCERCOID INFECTIONS OF *DIPHYLLOBOTHRIUM DENDRITICUM* (NITZSCH, 1824) AND *D. DITREMUM* (CREPLIN, 1825). *J. Fish Biol.* 35(6):781-794. 1989. FR 35(1)
[Dep. Zool., Univ. Aberdeen, Tillydrone Ave., Aberdeen AB9 2TN, Scotland]

90-000801 Taylor, M. and D. Hoole. *LIGULA INTESTINALIS* (L.) (CESTODA: PSEUDOPHYLLIDEA): AN ULTRASTRUCTURAL STUDY OF THE CELLULAR RESPONSE OF ROACH FRY, *RUTILIS RUTILIS* L., TO AN UNUSUAL INTRAMUSCULAR INFECTION. *J. Fish*

OTHER DISEASES AND PARASITES (CONTINUED)

90-000801 CONTINUED *Dis.* 12(5):523-528. 1989. FR 35(1)
[Hoole: Dep. Biol. Sci., Univ. Keele, Keele, Staffordshire ST5 5BG, England]

90-000802 Tomnatic, V. E. [DURATION OF BASIC STAGES OF *DACTYLOGYRUS VASTATOR* DEVELOPMENT AND GROWTH AND PROPHYLAXIC OF YOUNG CARP DACTYLOGYROSIS.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 59-65, 266. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

90-000803 Trombitsky, I. D. [ON FISH IMMUNIZATION AGAINST DIPLOSTOMOSIS.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 80-81, 267. 1987. In Russian with English summ. FR 35(1)
Xiphophorus helleri.

POLLUTION

90-000804 Al-Saad, Hamid T. and Amina A. Al-Timari. DISTRIBUTION OF POLYCYCLIC AROMATIC HYDROCARBONS (PAH's) IN MARSH SEDIMENTS, IRAQ. *Bull. Environ. Contam. Toxicol.* 43(6):864-869. 1989. FR 35(1)
[Environ. Mar. Chem. Dep., Mar. Sci. Cent., Univ. Basrah, Basrah, Iraq]

90-000805 Awad, Hassan. OIL CONTAMINATION IN THE RED SEA ENVIRONMENT. *Water Air Soil Pollut.* 45(3-4):235-242. 1989. FR 35(1)
[Dep. Oceanogr., Fac. Sci. Moharram Bek, Alexandria, Egypt]

90-000806 Axler, Richard; John E. Reuter; Darell Slotton and Charles Goldman. HEAVY METAL DISTRIBUTION AND WATER QUALITY ASPECTS OF A NEWLY IMPOUNDED GOLD MINING RESERVOIR. *Verh. Int. Ver. Limnol.* 23(2):968-975. 1988. FR 35(1)
[Lake Mead Inst., Environ. Res. Inst., Univ. Nev., Las Vegas 89154] *Hesperoleucus symmetricus* in California.

90-000807 Ayers, Gregory P. and Robert W. Gillett. ACIDIFICATION IN AUSTRALIA. *In: Acidification in Tropical Countries. Henning Rodhe and Rafael Herrera, editors.* Scope 36. p. 347-402. 1988. FR 35(1)
[CSIRO, Div. Atmos. Res., Private Bag No. 1, Mordialloc, Vic. 3195, Australia]

90-000808 Bailey, R. S. INTERACTIONS BETWEEN FISHERIES, FISH STOCKS AND SEABIRDS. *Mar. Pollut. Bull.* 20(9):427-430. 1989. FR 35(1)
[Dep. Agric. & Fish., Scotland Mar. Lab., Aberdeen, Scotland]

90-000809 Baker, Francis C. EFFECTS OF ACID MINE DRAINAGE FROM THREE ABANDONED UNDERGROUND COAL MINING OPERATIONS IN PUTNAM COUNTY ON THE WATER QUALITY AND FAUNA OF THE EAST FORK OF THE OBEY RIVER, TENNESSEE. *M.S. thesis, Tenn. Technol. Univ.* 137p. 1989. FR 35(1)

90-000810 Beck, L. A REVIEW OF FARM WASTE POLLUTION. *J. Inst. Water Environ. Manage.* 3(5):467-477. 1989. FR 35(1)

POLLUTION (CONTINUED)

90-000811 Beddington, J. R.; C. A. Mills; F. Beards; M. J. Minski and J. N. B. Bell. LONG-TERM CHANGES IN STRONTIUM-90 CONCENTRATIONS WITHIN A FRESHWATER PREDATOR-PREY SYSTEM. *J. Fish Biol.* 35(5):679-686. 1989. FR 35(1)
[Mills: Inst. Freshwater Ecol., Windermere Lab., Ambleside, Cumbria LA22 0LP, England] *Perca fluviatilis* and *Esox lucius* in England.

90-000812 Borne, Jeffrey Owen. EFFECTS OF ACID MINE POLLUTION UPON THE OCCURRENCE OF INVERTEBRATE AND FISH POPULATIONS IN SUGAR CREEK, VIGO COUNTY, INDIANA. *M.S. thesis, Indiana State Univ.* 69p. 1970. FR 35(1)
Ericymba buccata, Semotilus atromaculatus, Campostoma anomalum, Pimephales notatus, Notropis atherinoides, and *Ictalurus melas.*

90-000813 Bulloch, David K. POLLUTION: A COASTAL SURVEY. *Underwater Nat.* 18(3):3-16. 1989. FR 35(1)

90-000814 Burton, G. Allen, Jr.; Betty L. Stemmer; Kelly L. Winks; Philippe E. Ross and LouAnn C. Burnett. A MULTITROPHIC LEVEL EVALUATION OF SEDIMENT TOXICITY IN WAUKEGAN AND INDIANA HARBORS. *Environ. Toxicol. Chem.* 8(11):1057-1066. 1989. FR 35(1)
[Biol. Sci. Dep., Wright State Univ., Dayton, OH 45435]

90-000815 DeLaune, Ronald D. and Charles W. Lindau. NITRIFICATION AND NITRATE REDUCTION IN BOTTOM SEDIMENT OF LOUISIANA'S BARATARIAN BASIN. *Northeast Gulf Sci.* 10(2):163-167. 1989. FR 35(1)
[Cent. Wetland Resour./Nuclear Sci. Cent., La. State Univ., Baton Rouge 70803]

90-000816 DeWitt, Theodore H.; Richard C. Swartz and Janet O. Lamberson. MEASURING THE ACUTE TOXICITY OF ESTUARINE SEDIMENTS. *Environ. Toxicol. Chem.* 8(11):1035-1048. 1989. FR 35(1)
[Oreg. State Univ.; Hatfield Mar. Sci. Cent., Newport 97365]

90-000817 Di Giulio, Richard T.; Peter C. Washburn; Richard J. Wenning; Gary W. Winston and Catherine S. Jewell. BIOCHEMICAL RESPONSES IN AQUATIC ANIMALS: A REVIEW OF DETERMINANTS OF OXIDATIVE STRESS. *Environ. Toxicol. Chem.* 8(12):1103-1123. 1989. FR 35(1)
[Ecotoxicol. Lab., School For. & Environ. Studies, Duke Univ., Durham, NC 27706]

90-000818 Dunnivant, Frank M.; Anne L. Polansky and Alan W. Elzerman. PERSISTENCE AND DISTRIBUTION OF PCBs IN THE SEDIMENTS OF A RESERVOIR (LAKE HARTWELL, SOUTH CAROLINA). *Bull. Environ. Contam. Toxicol.* 43(6):870-878. 1989. FR 35(1)
[Elzerman: Environ. Syst. Eng., Clemson Univ., Clemson, SC 29634-0919]

90-000819 Edwards, R. W. and M. Cryer. ANGLER LITTER. *Inst. Terrestrial Ecol. (NERC) Symp.* No. 19. p. 7-14. 1987. FR 35(1)
[Dep. Appl. Biol., Univ. Wales Inst. Sci. & Technol., Cardiff, Wales]

90-000820 Ehrhardt, Manfred and Gert Petrick. RELATIVE CONCENTRATIONS OF DISSOLVED/DISPERSED FOSSIL FUEL RESIDUES IN MEDITERRANEAN SURFACE WATERS AS MEASURED BY UV FLUORESCENCE. *Mar. Pollut. Bull.* 20(11):560-565. 1989.

POLLUTION (CONTINUED)

90-000820 CONTINUED FR 35(1)
[Inst. Meereskunde, Univ. Kiel, Dep. Mar. Chem., Duesternbrookerweg 20, 2300 Kiel 1, West Germany]

90-000821 El-Sabh, M. I. and T. S. Murty. SIMULATION OF THE MOVEMENT AND DISPERSION OF OIL SLICKS IN THE ARABIAN GULF. *Nat. Hazards* 1(2):197-219. 1988. From Ecol. Abstr. 89(6):89L/06503. 1989. FR 35(1)

90-000822 Engelhardt, F. R., editor. PETROLEUM EFFECTS IN THE ARCTIC ENVIRONMENT. *Elsevier Appl. Sci. Publ.* 281p. 1985. FR 35(1)
[Oil & Gas Lands Admin., Ottawa, ON, Canada] Selected papers indexed in this issue of *Fisheries Review.*

90-000823 Flint, R. Warren; William H. McDowell and Greg Yogis. POTENTIAL USE OF ORGANOCHLORINE CONTAMINANTS TO VALIDATE A FOOD WEB MODEL. *Verh. Int. Ver. Limnol.* 23(1):265-270. 1988. FR 35(1)
[Res. Cent., SUNY, Oswego, NY 13126]

90-000824 Forsberg, Curt and Greta Morling. EXAMPLES OF CHANGES IN WATER CHEMISTRY DURING LAKE ACIDI- AND "DEACIDIFICATION." *Verh. Int. Ver. Limnol.* 23(1):193-199. 1988. FR 35(1)
[Inst. Limnol., Box 557, S-751 22 Uppsala, Sweden]

90-000825 Frost, Thomas M. and Pamela K. Montz. EARLY ZOOPLANKTON RESPONSE TO EXPERIMENTAL ACIDIFICATION IN LITTLE ROCK LAKE, WISCONSIN, USA. *Verh. Int. Ver. Limnol.* 23(4):2279-2285. 1988. FR 35(1)
[Cent. Limnol., Univ. Wis., Madison 53706]

90-000826 Galloway, James N. EFFECTS OF ACID DEPOSITION ON TROPICAL AQUATIC ECOSYSTEMS. *In: Acidification in Tropical Countries. Henning Rodhe and Rafael Herrera, editors.* Scope 36. p. 141-166. 1988. FR 35(1)
[Clark Hall, Environ. Sci. Dep., Univ. Va., Charlottesville 22903]

90-000827 Giani, G.; A. Riberzani; E. Sangiorgi; A. Bosco; E. Carpene and G. Fedrizzi. [HEAVY METALS (Hg, Pb, Cr) IN FRESH WATER FISHES IN EMILIA ROMAGNA REGION.] *Arch. Vet. Ital.* 40(3):190-196. 1989. In Italian with English summ. FR 35(1)
[USL 23, Servizio Vet., Viale Pirandello 12, Imola, Italy] *Anguilla anguilla, Barbus barbus, Leuciscus cephalus, Chondrostoma toxostoma,* and *Carassius auratus* in Italy.

90-000828 Glynn, Peter W.; Alina M. Szmant; Eugene F. Corcoran and Stephen V. Cofer-Shabica. CONDITION OF CORAL REEF CNIDARIANS FROM THE NORTHERN FLORIDA REEF TRACT: PESTICIDES, HEAVY METALS, AND HISTOPATHOLOGICAL EXAMINATION. *Mar. Pollut. Bull.* 20(11):568-576. 1989. FR 35(1)
[Div. Biol. & Living Resour., Rosenstiel School Mar. & Atmos. Sci., Univ. Miami, 4600 Rickenbacker Causeway, Miami, FL 33149]

90-000829 Hellawell, J. M. BIOLOGICAL INDICATORS OF FRESHWATER POLLUTION AND ENVIRONMENTAL MANAGEMENT. *Elsevier Appl. Sci. Publ.* 546p. 1986. FR 35(1)

90-000830 Isichei, Augustine O. and Funso Akeredolu. ACIDIFICATION POTENTIAL IN THE NIGERIAN ENVIRONMENT. *In: Acidification in Tropical Countries. Henning Rodhe and Rafael Herrera, editors.* Scope 36. p. 297-316. 1988. FR 35(1)
[Dep. Bot., Obafemi Awolows Univ., Ile-Ife, Nigeria]

POLLUTION (CONTINUED)

90-000831 Iverfeldt, Ake and Kjell Johansson. MERCURY IN RUN-OFF WATER FROM SMALL WATERSHEDS. *Verh. Int. Ver. Limnol.* 23(3):1626-1632. 1988. FR 35(1)
[Environ. Res. Inst., P.O. Box 47086, S-402 58 Goteborg, Sweden]

90-000832 Kasoulides, George C. LEGAL NATURE OF DUMPING ACTIVITIES. *Mar. Pollut. Bull.* 20(10):488-489. 1989. FR 35(1)

90-000833 Kozhoukhar, I. F.; L. V. Mikailovskaya; V. A. Gherbovtsan and V. E. Spiridonova. [pH VALUES IN MOLDAVIAN PONDS AND THE PROBLEM OF THEIR ADJUSTMENT.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 149-156, 270. 1987. In Russian with English summ. FR 35(1)

90-000834 Lacroix, Gilles L. PRODUCTION OF JUVENILE ATLANTIC SALMON *(SALMO SALAR)* IN TWO ACIDIC RIVERS OF NOVA SCOTIA. *Can. J. Fish. Aquat. Sci.* 46(11):2003-2018. 1989. In English with French summ. FR 35(1)
[Dep. Fish. & Oceans, Biol. Stn., St. Andrews, NB, Canada E0G 2X0]

90-000835 Larsen, Birger and Anders Jensen. EVALUATION OF THE SENSITIVITY OF SEDIMENT STATIONS IN POLLUTION MONITORING. *Mar. Pollut. Bull.* 20(11):556-560. 1989. FR 35(1)
[Inst. Appl. Geol., Tech. Univ. Denmark, DK-2800 Lyngby, Denmark]

90-000836 Lijklema, L.; K. R. Imhoff; K. J. Ives; D. Jenkins; R. G. Ludwig; M. Suzuki; D. F. Toerien; A. B. Wheatland; A. Milburn and E. J. Izod, editors. WATER POLLUTION RESEARCH AND CONTROL, BRIGHTON. PART 5. PROCEEDINGS OF THE FOURTEENTH BIENNIAL CONFERENCE OF THE INTERNATIONAL ASSOCIATION ON WATER POLLUTION RESEARCH AND CONTROL, HELD IN BRIGHTON, U.K., 18-21 JULY, 1988. *Water Sci. Technol.* 21(12):1531-1928. 1989. FR 35(1)
[Agric. Univ., Water Quality Manage. Sect., P.O. Box 8060, 6700 DA Wageningen, Netherlands]

90-000837 McDowell, William H. POTENTIAL EFFECTS OF ACID DEPOSITION ON TROPICAL TERRESTRIAL ECOSYSTEMS. *In: Acidification in Tropical Countries. Henning Rodhe and Rafael Herrera, editors.* Scope 36. p. 117-139. 1988. FR 35(1)
[Res. Cent., King Hall, SUNY, Oswego, NY 13126]

90-000838 McNeill, A. THE EFFECTS OF A TIMBER PRESERVATIVE SPILLAGE ON THE ECOLOGY OF THE RIVER LOSSIE. *J. Inst. Water Environ. Manage.* 3(5):496-504. 1989. FR 35(1)

90-000839 Meili, Markus and Helena Parkman. SEASONAL MERCURY ACCUMULATION PATTERNS IN MESOPLANKTON. *Verh. Int. Ver. Limnol.* 23(3):1639-1640. 1988. FR 35(1)
[Inst. Limnol., Univ. Uppsala, Box 557, S-751 22 Uppsala, Sweden]

90-000840 Misra, R. K.; J. F. Uthe and W. Vynke. MONITORING OF TIME TRENDS IN CONTAMINANT LEVELS USING A MULTISPECIES APPROACH: CONTAMINANT TRENDS IN ATLANTIC COD (*GADUS MORHUA*) AND EUROPEAN FLOUNDER (*PLATICHTHYS FLESUS*) ON THE BELGIAN COAST, 1978-1985. *Mar. Pollut. Bull.* 20(10):500-502. 1989. FR 35(1)
[Mar. Chem. Div., Physical & Chem. Sci. Branch, Dep. Fish & Oceans, P.O. Box 550, Halifax, NS, Canada B3J 2S7]

POLLUTION (CONTINUED)

90-000841 Moldan, Anton and Allison Dehrman. TRENDS IN OIL SPILL INCIDENTS IN SOUTH AFRICAN COASTAL WATERS. *Mar. Pollut. Bull.* 20(11):565-567. 1989. FR 35(1)
[Sea Fish. Res. Inst., Private Bag X2, Roggebaai 8012, South Africa]

90-000842 Molot, Lewis A.; P. J. Dillon and B. D. LaZerte. FACTORS AFFECTING ALKALINITY CONCENTRATIONS OF STREAMWATER DURING SNOWMELT IN CENTRAL ONTARIO. *Can. J. Fish. Aquat. Sci.* 46(10):1658-1666. 1989. In English with French summ. FR 35(1)
[Dep. Zool., Univ. Toronto, 25 Harbord St., Toronto, ON, Canada M5S 1A1]

90-000843 Moreira-Nordemann, Lycia Maria; Maria Cristina Forti; Vania Lucia di Lascio; Clovis Monteiro do Espirito Santo and Olga Maria Danelon. ACIDIFICATION IN SOUTHEASTERN BRAZIL. *In: Acidification in Tropical Countries. Henning Rodhe and Rafael Herrera, editors.* Scope 36. p. 257-296. 1988. FR 35(1)
[INPE, C.P. 515, 12200 S. Jose dos Campos, Brazil]

90-000844 Myllyvirta, Tero P. and Pekka J. Vuorinen. AVOIDANCE OF BLEACHED KRAFT MILL EFFLUENT BY PRE-EXPOSED *COREGONUS ALBULA* L. *Water Res.* 23(10):1219-1227. 1989. FR 35(1)
[Vuorinen: Finnish Game & Fish. Res. Inst., Fish. Div., P.O. Box 202, SF-00151 Helsinki, Finland]

90-000845 Nriagu, Jerome O., editor. TRACE METALS IN LAKES. PROCEEDINGS OF AN INTERNATIONAL CONFERENCE HELD AT McMASTER UNIVERSITY, HAMILTON, ONTARIO, CANADA, 14-18 AUGUST 1988. *Sci. Total Environ.* 87/88:529p. 1989. FR 35(1)
Selected papers indexed in this issue of *Fisheries Review.*

90-000846 Paulson, Anthony J.; Herbert C. Curl, Jr., and Richard A. Feely. ESTIMATES OF TRACE METAL INPUTS FROM NON-POINT SOURCES DISCHARGED INTO ESTUARIES. *Mar. Pollut. Bull.* 20(11):549-555. 1989. FR 35(1)
[Pac. Mar. Environ. Lab., NOAA, 7600 Sand Point Way NE, Seattle, WA 98115-0070]

90-000847 Paulsson, Karin and Klas Lundbergh. THE SELENIUM METHOD FOR TREATMENT OF LAKES FOR ELEVATED LEVELS OF MERCURY IN FISH. *Sci. Total Environ.* 87/88:495-507. 1989. FR 35(1)
[Boliden Mineral AB, Smelting Div., S-93200 Skelleftehamn, Sweden] *Esox lucius, Perca fluviatilis,* and *Leuciscus rutilus* in Sweden.

90-000848 Persson, Per-Edvin. OFF-FLAVOURS IN FISH FROM WATERS AROUND A PULP AND PAPER MILL IN FINLAND. *Verh. Int. Ver. Limnol.* 23(3):1751-1755. 1988. FR 35(1)
[Univ. Helsinki, Dep. Limnol., Viikki, SF-00710 Helsinki, Finland]

90-000849 Phillips, Douglas and W. A. Sliger. THE COPPER, LEAD, AND ORGANIC CONTENT OF SELECTED SHALLOW SEDIMENTS OF REELFOOT LAKE, TENNESSEE. *J. Tenn. Acad. Sci.* 64(4):247. 1989. Abstract only. FR 35(1)

90-000850 Portmann, J. E., compiler. FIRST REPORT OF THE MARINE POLLUTION MONITORING MANAGEMENT GROUP'S CO-ORDINATING GROUP ON MONITORING OF SEWAGE-SLUDGE DISPOSAL SITES. *MAFF Dir. Fish. Res. Aquat. Environ. Monit.*

POLLUTION (CONTINUED)

90-000850 CONTINUED *Rep.* No. 20. 64p. 1989. FR 35(1)
[MAFF Fish. Lab., Burnham-on-Crouch, Essex CM0 8HA, England]

90-000851 Quinn, J. M. and P. N. McFarlane. CONTROL OF SEWAGE FUNGUS TO ENHANCE RECREATIONAL USE OF THE MANAWATU RIVER, NEW ZEALAND. *Verh. Int. Ver. Limnol.* 23(3):1572-1577. 1988. FR 35(1)
[Water Quality Cent., Private Bag, Hamilton, New Zealand]

90-000852 Raddum, Gunnar G.; Arne Fjellheim and Trygve Hesthagen. MONITORING OF ACIDIFICATION BY THE USE OF AQUATIC ORGANISMS. *Verh. Int. Ver. Limnol.* 23(4):2291-2297. 1988. FR 35(1)
[Dep. Anim. Ecol., Zool. Mus., Bergen Univ., N-5000 Bergen, Norway] *Salmo salar.*

90-000853 Riaux-Gobin, Catherine. LONG-TERM CHANGES IN MICROPHYTOBENTHOS IN A BRITTANY ESTUARY AFTER THE 'AMOCO CADIZ' OIL SPILL. *Mar. Ecol. Prog. Ser.* 24:51-56. 1985. From Trav. Stn. Biol. Roscoff 32:138-143. 1986. FR 35(1)
[Cent. Etudes Oceanol. & Biol. Mar., F-29211 Roscoff, France]

90-000854 Rice, S. D. EFFECTS OF OIL ON FISH. *In: Petroleum Effects in the Arctic Environment. F. R. Engelhardt, editor.* p. 157-182. 1985. FR 35(1)
[Auke Bay Lab., Auke Bay, AK]

90-000855 Richards, R. Peter. EVALUATION OF SOME APPROACHES TO ESTIMATING NON-POINT POLLUTANT LOADS FOR UNMONITORED AREAS. *Water Resour. Bull.* 25(4):891-904. 1989. FR 35(1)
[Water Quality Lab., Heidelberg Coll., 310 E. Market St., Tiffin, OH 44883]

90-000856 Rodhe, Henning and Rafael Herrera, editors. ACIDIFICATION IN TROPICAL COUNTRIES. *John Wiley & Sons, Inc.* Scope 36. 405p. 1988. FR 35(1)
Selected papers indexed in this issue of *Fisheries Review.*

90-000857 Sanhueza, Eugenio; Gisela Cuenca; Maria J. Gomez; Rafael Herrera; Chanel Ishizaki; Iris Marti and Jorge Paolini. CHARACTERIZATION OF THE VENEZUELAN ENVIRONMENT AND ITS POTENTIAL FOR ACIDIFICATION. *In: Acidification in Tropical Countries. Henning Rodhe and Rafael Herrera, editors.* Scope 36. p. 197-255. 1988. FR 35(1)
[IVIC, Cent. Ecol., Apdo. 21827, Caracas 21010-A, Venezuela]

90-000858 Sapunar, Jasenka; Mirna Jusic and Davorin Bazulic. TOTAL MERCURY AND CADMIUM IN SOME CEPHALOPODS AND FISH FROM THE ADRIATIC SEA. *Mar. Pollut. Bull.* 20(11):576-577. 1989. FR 35(1)
[Inst. Public Health SR Croatia, 41000 Zagreb, Rockefellerova 7, Yugoslavia]

90-000859 Singh, A. K. and J. P. Gaur. ALGAL EPILITHON AND WATER QUALITY OF A STREAM RECEIVING OIL REFINERY EFFLUENT. *Hydrobiologia* 184(3):193-199. 1989. FR 35(1)
[Gaur: Dep. Bot., School Life Sci., North-East. Hill Univ., Shillong 793 014, India]

POLLUTION (CONTINUED)

90-000860 Wells, P. G. and J. A. Percy. EFFECTS OF OIL ON ARCTIC INVERTEBRATES. *In: Petroleum Effects in the Arctic Environment. F. R. Engelhardt, editor.* p. 101-156. 1985. FR 35(1)
[Environ. Protection Serv., Univ. Toronto, Toronto, ON, Canada]

90-000861 Wood, Millicent A. and David Churchman. OIL TROUBLED WATERS. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 341-346. 1989. FR 35(1)

90-000862 Young, Leah Bendell and Harold H. Harvey. METALS IN CHIRONOMIDAE LARVAE AND ADULTS IN RELATION TO LAKE pH AND LAKE OXYGEN DEFICIENCY. *Verh. Int. Ver. Limnol.* 23(1):246-251. 1988. FR 35(1)
[Dep. Zool., Univ. Toronto, Toronto, ON, Canada M5S 1A1]

90-000863 Zhao Dianwu and Xiong Jiling. ACIDIFICATION IN SOUTHWESTERN CHINA. *In: Acidification in Tropical Countries. Henning Rodhe and Rafael Herrera, editors.* Scope 36. p. 317-346. 1988. FR 35(1)
[Inst. Environ. Chem., Acad. Sinica, P.O. Box 934, Beijing, China]

FISH KILLS

90-000864 Gosselin, Serge; Louis Fortier and Jacques A. Gagne. VULNERABILITY OF MARINE FISH LARVAE TO THE TOXIC DINOFLAGELLATE *PROTOGONYAULAX TAMARENSIS. Mar. Ecol. Prog. Ser.* 57(1):1-10. 1989. FR 35(1)
[Dep. Biol., Univ. Laval, Laval, PQ, Canada G1K 7P4] *Mallotus villosus* and *Clupea harengus.*

90-000865 Hobson, Edmund S. and Daniel F. Howard. MASS STRANDINGS OF JUVENILE SHORTBELLY ROCKFISH AND PACIFIC HAKE ALONG THE COAST OF NORTHERN CALIFORNIA. *Calif. Fish Game* 75(3):169-172. 1989. FR 35(1)
[Southwest Fish. Cent., Tiburon Lab., 3150 Paradise Dr., Tiburon, CA 94940] *Merluccius productus* and *Sebastes jordani.*

90-000866 Honsig-Erlenburg, Wolfgang. [FISH MORTALITY IN 1988 IN KARTEN.] *Osterreichs Fischerei* 42(2/3):60-61. 1989. In German. FR 35(1)

90-000867 Szelistowski, William A. and Juan Garita. MASS MORTALITY OF SCIAENID FISHES IN THE GULF OF NICOYA, COSTA RICA. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 87(2):363-365. 1989. FR 35(1)
[Cent. Invest. Cienc. Mar & Limnol. (CIMAR), Univ. Costa Rica, Ciudad Universitaria "Rodrigo Facio", Costa Rica]

TOXICOLOGY; BIOASSAYS

90-000868 Anokhin, Yu. L. [EFFECT OF MIXED POLLUTION ON FREE AMINO ACID CONTENT IN SILVER CARP AND BIGHEAD LIVER.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 144-149, 269. 1987. In Russian with English summ. FR 35(1)
Hypophthalmichthys molitrix and *Aristichthys nobilis.*

TOXICOLOGY; BIOASSAYS (CONTINUED)

90-000869 Belkosky, N. M. and A. I. Mishchenko. [EFFECT OF WATER DISSOLVED FERROUS OXIDE ON IRON AND MALONIC DEALDEHYDE CONTENT IN RAINBOW TROUT LIVER.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 180-183, 271. 1987. In Russian with English summ. FR 35(1)
Oncorhynchus mykiss.

90-000870 Bevan, C.; E. Kinne-Saffran; E. C. Foulkes and R. K. H. Kinne. CADMIUM INHIBITION OF L-ALANINE TRANSPORT INTO RENAL BRUSH BORDER MEMBRANE VESICLES ISOLATED FROM THE WINTER FLOUNDER *(PSEUDOPLEURONECTES AMERICANUS). Toxicol. Appl. Pharmacol.* 101(3):461-469. 1989. FR 35(1)
[Max-Planck-Inst. Systemphysiol., Rheinlanddamm 201, D-4600 Dortmund 1, West Germany]

90-000871 Bhattacharya, Tapati; Shelley Bhattacharya; Arun Kumar Ray and Subhadra Dey. INFLUENCE OF INDUSTRIAL POLLUTANTS ON THYROID FUNCTION IN *CHANNA PUNCTATUS* (BLOCH). *Indian J. Exp. Biol.* 27(1):65-68. 1989. FR 35(1)
[Dep. Zool., Visva-Bharati Univ., Santiniketan 731 235, India]

90-000872 Bogdanova, L. A. and S. V. Ritov. [CHLOROPHOS EFFECT ON METABOLIC PROCESSES IN YOUNG CARP.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 170-174, 271. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

90-000873 Braune, Birgit M. and Ross J. Norstrom. DYNAMICS OF ORGANOCHLORINE COMPOUNDS IN HERRING GULLS: III. TISSUE DISTRIBUTION AND BIOACCUMULATION IN LAKE ONTARIO GULLS. *Environ. Toxicol. Chem.* 8(10):957-968. 1989. FR 35(1)
[Norstrom: Environ. Canada, Canadian Wildl. Serv., Natl. Wildl. Res. Cent., Ottawa, ON, Canada K1A 0H3] *Alosa pseudoharengus* and *Osmerus mordax.*

90-000874 Brazner, John C.; Larry J. Heinis and Douglas A. Jensen. A LITTORAL ENCLOSURE FOR REPLICATED FIELD EXPERIMENTS. *Environ. Toxicol. Chem.* 8(12):1209-1216. 1989. FR 35(1)
[U.S. Environ. Protection Agency, Environ. Res. Lab., Duluth, MN 55804]

90-000875 Bullock, Alistair Morrison. THE SKIN RESPONSE OF FISH TO ULTRAVIOLET RADIATION: A HISTOLOGICAL STUDY. *Ph.D. dissertation, Univ. Stirling (United Kingdom)* 394p. 1984. From Diss. Abstr. Int. B Sci. Eng. 50(5):1801. 1989. Order No. BRD-86131. FR 35(1)
Pleuronectes platessa, Scophthalmus maximus, Oncorhynchus mykiss, and *Salmo salar.*

90-000876 Chai, Davy. INDUCTION OF HEPATIC PATHOLOGIES IN MEDAKA, *(ORYZIAS LATIPES)*: A MODEL FOR THE DETECTION OF THE PRESENCE OF CARCINOGENS IN THE ENVIRONMENT. *Ph.D. dissertation, Univ. Louisville* 131p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(4):1196-1197. 1989. Order No. DA8914135. FR 35(1)

90-000877 Cruz, Erlinda R. and Catherine T. Tamse. ACUTE TOXICITY OF POTASSIUM PERMANGANATE TO MILKFISH FINGERLINGS, *CHANOS CHANOS. Bull. Environ. Contam. Toxicol.* 43(5):785-788. 1989. FR 35(1)
[Fish Health Sect., Aquacult. Dep., Southeast Asian Fish. Dev. Cent., Tigbauan, Iloilo, Philippines 5021]

TOXICOLOGY; BIOASSAYS (CONTINUED)

90-000878 De Vault, David; William Dunn; Per-Anders Bergqvist; Karin Wiberg and Christoffer Rappe. POLYCHLORINATED DIBENZOFURANS AND POLYCHLORINATED DIBENZO-*p*-DIOXINS IN GREAT LAKES FISH: A BASELINE AND INTERLAKE COMPARISON. *Environ. Toxicol. Chem.* 8(11):1013-1022. 1989. FR 35(1)
[U.S. Environ. Protection Agency, Great Lakes Natl. Program Office, Chicago, IL 60604] *Salvelinus namaycush* and *Stizostedion vitreum vitreum.*

90-000879 Dietrich, Daniel and Christian Schlatter. ALUMINIUM TOXICITY TO RAINBOW TROUT AT LOW pH. *Aquat. Toxicol. (Amst.)* 15(3):197-212. 1989. FR 35(1)
[Inst. Toxicol., Swiss Fed. Inst. Technol. & Univ. Zurich, CH-8603 Schwerzenbach, Switzerland] *Oncorhynchus mykiss.*

90-000880 Douben, Peter E. T. and Jan H. Koeman. EFFECT OF SEDIMENT ON CADMIUM AND LEAD IN THE STONE LOACH (*NOEMACHEILUS BARBATULUS* L.). *Aquat. Toxicol. (Amst.)* 15(3):253-268. 1989. FR 35(1)
[Res. Inst. Nat. Manage., P.O. Box 9201, 6800 HB Arnhem, Netherlands]

90-000881 Dubchak, O. N.; L. S. Kipnis and M. A. Fomovsky. [TOXICITY FOR HYDROBIONTS OF COAGULANTS FROM ALUMINIUM-CONTAINING WASTES OF PAINT AND ANILINE INDUSTRY.] *Gidrobiol. Zh.* 25(2):71-73. 1989. In Russian with English summ. FR 35(1)

90-000882 Everall, N. C.; N. A. A. Macfarlane and R. W. Sedgwick. THE EFFECTS OF WATER HARDNESS UPON THE UPTAKE, ACCUMULATION AND EXCRETION OF ZINC IN THE BROWN TROUT, *SALMO TRUTTA* L. *J. Fish Biol.* 35(6):881-892. 1989. FR 35(1)
[N.E. River Purification Board, Greyhope House, Greyhope Rd., Torry, Aberdeen AB1 3RD, Scotland]

90-000883 Galash, V. T. and N. A. Golovina. [HEMATOLOGICAL CHARACTERISTICS OF ACUTE, SUBACUTE AND CHRONIC T-2-TOXICOSIS IN CARP.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 109-121, 268. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

90-000884 Gossett, Richard; Gary Wikholm; John Ljubenkov and David Steinman. HUMAN SERUM DDT LEVELS RELATED TO CONSUMPTION OF FISH FROM THE COASTAL WATERS OF LOS ANGELES. *Environ. Toxicol. Chem.* 8(10):951-955. 1989. FR 35(1)
[South. Calif. Coastal Water Res. Project, Long Beach 90806] *Genyonemus lineatus* in California.

90-000885 Handy, R. D.; F. B. Eddy and G. Romain. *IN VITRO* EVIDENCE FOR THE IONOREGULATORY ROLE OF RAINBOW TROUT MUCUS IN ACID, ACID/ALUMINIUM AND ZINC TOXICITY. *J. Fish Biol.* 35(5):737-747. 1989. FR 35(1)
[Dep. Biol. Sci., The Univ., Dundee DD1 4HN, Scotland] *Oncorhynchus mykiss.*

90-000886 Haniffa, M. A. and S. Mary Vijayarani. HEMATOLOGICAL EFFECTS OF TEXTILE MILL EFFLUENT ON FRESHWATER FISH *OREOCHROMIS MOSSAMBICUS* (TREWAVES). *Indian J. Exp. Biol.* 27(5):476-478. 1989. FR 35(1)
[Res. Dep. Zool., St. Xavier's Coll., Palayankottai 627 002, India]

TOXICOLOGY; BIOASSAYS (CONTINUED)

90-000887 Hellou, Jocelyne; Joseph H. Banoub and Anne Ryan. FATE OF NAPHTHENIC HYDROCARBONS IN THE BILE OF RAINBOW TROUT *(SALMO GAIRDNERI)*. *Environ. Toxicol. Chem.* 8(10):871-876. 1989. FR 35(1)
[Sci. Branch, Exp. Sci. Div., Dep. Fish. & Oceans, St. John's, NF, Canada A1C 5X1]

90-000888 Hill, Jennifer. ANALYSIS OF SIX FORAGING BEHAVIORS AS TOXICITY INDICATORS, USING JUVENILE SMALLMOUTH BASS EXPOSED TO LOW ENVIRONMENTAL pH. *Arch. Environ. Contam. Toxicol.* 18(6):895-899. 1989. FR 35(1)
[School For. Resour., Univ. Ga., Athens 30602] *Micropterus dolomieui*.

90-000889 Hothem, Roger L. and Harry M. Ohlendorf. CONTAMINANTS IN FOODS OF AQUATIC BIRDS AT KESTERSON RESERVOIR, CALIFORNIA, 1985. *Arch. Environ. Contam. Toxicol.* 18(6):773-786. 1989. FR 35(1)
[Pac. Res. Group, c/o Dep. Wildl. & Fish. Biol., Univ. Calif., Davis 95616] *Gambusia affinis*.

90-000890 Ivanekha, E. V. [HYDROGEN PEROXIDE EFFECT ON PEROXIDATION IN FISH TISSUES UNDER NORMAL CONDITIONS AND UNDER CHLOROPHOS EFFECT.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 187-192, 271-272. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

90-000891 Ivanov, E. V. [RELATIONSHIP BETWEEN NORMALLY DEVELOPING PHYTOPLANKTON CELLS AND VARIOUS NITROGEN FORMS IN THE MEDIUM AND ITS SIGNIFICANCE IN FORMING TOXIC SITUATION IN THE RESERVOIR.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 239-247, 274. 1987. In Russian with English summ. FR 35(1)

90-000892 Kennedy, Christopher J.; Kenneth A. Gill and Patrick J. Walsh. THERMAL MODULATION OF BENZO(*a*)PYRENE UPTAKE IN THE GULF TOADFISH, *OPSANUS BETA*. *Environ. Toxicol. Chem.* 8(10):863-869. 1989. FR 35(1)
[Walsh: Div. Biol. & Living Resour., Rosenstiel School Mar. & Atmos. Sci., Univ. Miami, Miami, FL 33149]

90-000893 Krasnova, T. N. [EFFECT OF pH ALKALINITY VALUES ON CARP PHYSIOLOGICAL STATE.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 175-179, 271. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

90-000894 Lee, Byung Mu and Geoffrey I. Scott. ACUTE TOXICITY OF TEMEPHOS, FENOXYCARB, DIFLUBENZURON, AND METHOPRENE AND *BACILLUS THURINGIENSIS* VAR. *ISRAELENSIS* TO THE MUMMICHOG *(FUNDULUS HETEROCLITUS)*. *Bull. Environ. Contam. Toxicol.* 43(6):827-832. 1989. FR 35(1)
[Donner Lab., Rm. 322, Lawrence Berkeley Lab., Univ. Calif., Berkeley 94720]

90-000895 Lysenko, P. V.; E. N. Bekina and T. V. Shcherbina. [TOXIC EFFECT OF OXIDIZED FAT ON CARP FRY.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 192-197, 272. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

TOXICOLOGY; BIOASSAYS (CONTINUED)

90-000896 Newman, Michael C. and Danette K. Doubet. SIZE-DEPENDENCE OF MERCURY (II) ACCUMULATION KINETICS IN THE MOSQUITOFISH, *GAMBUSIA AFFINIS* (BAIRD AND GIRARD). *Arch. Environ. Contam. Toxicol.* 18(6):819-825. 1989. FR 35(1)
[Savannah River Ecol. Lab., P.O. Drawer E, Aiken, SC 29801]

90-000897 Nimmo, Del Wayne R.; Denise Link; Loys P. Parrish; Glenn J. Rodriguez; William Wuerthele and Patrick H. Davies. COMPARISON OF ON-SITE AND LABORATORY TOXICITY TESTS: DERIVATION OF SITE-SPECIFIC CRITERIA FOR UN-IONIZED AMMONIA IN A COLORADO TRANSITIONAL STREAM. *Environ. Toxicol. Chem.* 8(12):1177-1189. 1989. FR 35(1)
[Water Resour. Div./Natl. Park Serv., 301 S. Howes St., Fort Collins, CO 80521]

90-000898 Ogle, Richard S. and Allen W. Knight. EFFECTS OF ELEVATED FOODBORNE SELENIUM ON GROWTH AND REPRODUCTION OF THE FATHEAD MINNOW (*PIMEPHALES PROMELAS*). *Arch. Environ. Contam. Toxicol.* 18(6):795-803. 1989. FR 35(1)
[Land, Air, & Water Resour. Dep., Veihmeyer Hall, Univ. Calif., Davis 95616]

90-000899 Olexiv, I. T. and N. S. Yalinskaya. [ON XENOBIOTIC DETOXICATION IN FISH PONDS CAUSED BY MINERALIZING ACTIVITY OF PLANKTONIC ORGANISMS.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 139-144, 269. 1987. In Russian with English summ. FR 35(1)

90-000900 Ooi, V. E. C. and F. K. Law. CHANGES INDUCED BY CADMIUM IN THE KIDNEY OF BLACK SEA BREAM, *MYLIO MACROCEPHALUS* (TELEOSTEI). *Bull. Environ. Contam. Toxicol.* 43(5):769-775. 1989. FR 35(1)
[Dep. Biol., Chinese Univ., Shatin, N.T., Hong Kong]

90-000901 Parina, O. V. and R. D. Ozrina. [ESTIMATION OF THE TOXIC EFFECT ON CARP OF ORGANOTIN COMPOUNDS BY VIRTUE OF THEIR ACCUMULATION AND EXCRETION.] *Gidrobiol. Zh.* 25(1):72-77. 1989. In Russian with English summ. FR 35(1)
Cyprinus carpio.

90-000902 Paulose, P. V. HISTOLOGICAL CHANGES IN RELATION TO ACCUMULATION AND ELIMINATION OF INORGANIC AND METHYL MERCURY IN GILLS OF *LABEO ROHITA* HAMILTON. *Indian J. Exp. Biol.* 27(2):146-150. 1989. FR 35(1)
[Dep. Zool., Univ. Rajasthan, Jaipur-302 004, India]

90-000903 Pellegrini, D. and C. Barghigiani. FEEDING BEHAVIOUR AND MERCURY CONTENT IN TWO FLAT FISH IN THE NORTHERN TYRRHENIAN SEA. *Mar. Pollut. Bull.* 20(9):443-447. 1989. FR 35(1)
[Biophysics Inst., Italian Natl. Res. Council, Via San Lorenzo 26, 56100 Pisa, Italy] *Solea vulgaris* and *Lepidorhombus boscii.*

90-000904 Pirous, R. I. and Z. G. Gamkalo. [CHLOROPHOS EFFECT ON ACETYLCHOLINESTERASE ACTIVITY AND BLOOD CELL CONDITION OF TWO-SUMMER-OLD CARP.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 183-187, 271. 1987. In Russian with English summ. FR 35(1)
Cyprinus carpio.

TOXICOLOGY; BIOASSAYS (CONTINUED)

90-000905 Playle, Richard C. and Chris M. Wood. WATER pH AND ALUMINUM CHEMISTRY IN THE GILL MICRO-ENVIRONMENT OF RAINBOW TROUT DURING ACID AND ALUMINUM EXPOSURES. *J. Comp. Physiol. B Biochem. Syst. Environ. Physiol.* 159(5):539-550. 1989. FR 35(1)
[Dep. Biol., McMaster Univ., Hamilton, ON, Canada L8S 4K1] *Oncorhynchus mykiss.*

90-000906 Pragatheeswaran, V.; B. Loganathan; R. Natarajan and V. K. Venugopalan. CADMIUM INDUCED MALFORMATION IN EYES OF *AMBASSIS COMMERSONI* CUVIER. *Bull. Environ. Contam. Toxicol.* 43(5):755-760. 1989. FR 35(1)
[Pollut. Control Div., Cent. Electrochem. Res. Inst., Karaikudi-623 006, Tamil Nadu, India]

90-000907 Puceat, Michel; Daniel Garin and Alain Freminet. INHIBITORY EFFECT OF ANAESTHESIA WITH 2-PHENOXYETHANOL AS COMPARED TO MS222 ON GLUCOSE RELEASE IN ISOLATED HEPATOCYTES FROM RAINBOW TROUT *(SALMO GAIRDNERI). Comp. Biochem. Physiol. A Comp. Physiol.* 94(2):221-224. 1989. FR 35(1)
[Freminet: Lab. Physiol. Metabolisme Intermediaire, Univ. Claude Bernard, Campus La Doua, Bat. 404 43 Blvd. du 11 Novembre 1918, 69622 Villeurbanne Cedex, France]

90-000908 Rahman, M. F.; M. K. J. Siddiqui; F. Anjum; S. S. H. Qadri; M. M. Sidky and F. H. Osman. ACUTE TOXICITY AND ANTI ACETYLCHOLINESTERASE POTENTIAL OF SOME BIPHENYL DERIVATIVES TO NON TARGET SPECIES. *Indian J. Exp. Biol.* 27(2):138-140. 1989. FR 35(1)
[Siddiqui: Toxicol. Unit, Regional Res. Lab., Hyderabad-500 007, India] *Tilapia mossambica.*

90-000909 Ramelow, G. J.; C. L. Webre; C. S. Mueller; J. N. Beck; J. C. Young and M. P. Langley. VARIATIONS OF HEAVY METALS AND ARSENIC IN FISH AND OTHER ORGANISMS FROM THE CALCASIEU RIVER AND LAKE, LOUISIANA. *Arch. Environ. Contam. Toxicol.* 18(6):804-818. 1989. FR 35(1)
[Dep. Chem., McNeese State Univ., Lake Charles, LA 70609-0455]

90-000910 Rao, K. V. R.; K. S. Rao; I. K. A. Sahib and S. Sivaiah. DIFFERENTIAL TOXICITY OF METHYL PARATHION AND MALATHION ON SOME SELECTED AQUATIC SPECIES. *Proc. Natl. Acad. Sci. India Sect. B (Biol. Sci.)* 57(4):367-370. 1987. From Ecol. Abstr. 89(5):89L/05391. 1989. FR 35(1)
Tilapia mossambica.

90-000911 Reiersen, L.-O. and K. Fugelli. THE EFFECT OF THE WATER SOLUBLE FRACTION OF NORTH SEA CRUDE OIL ON THE TRANSPORT MECHANISM OF TAURINE IN ERYTHROCYTES FROM FLOUNDER, *PLATICHTHYS FLESUS* (L.). *In: Fate and Effects of Oil in Marine Ecosystems. J. Kuiper and W. J. Van Den Brink, editors.* p. 89-100. 1987. FR 35(1)
[Norwegian State Pollution Control Authority, P.O. Box 8100, 0032 Oslo 1, Norway]

90-000912 Ritov, S. V. [EXPERIMENTAL STUDY OF THE EFFECT OF WATER CATION COMPOSITION ON COPPER ION TOXICITY FOR JUVENILE *DAPHNIA MAGNA* STRAUS.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 156-160, 270. 1987. In Russian with English summ. FR 35(1)

90-000913 Sandheinrich, Mark B. and Gary J. Atchison. SUBLETHAL COPPER EFFECTS ON BLUEGILL, *LEPOMIS MACROCHIRUS*, FORAGING BEHAVIOR. *Can. J. Fish. Aquat. Sci.* 46(11):1977-1985. 1989. In English with French summ.

TOXICOLOGY; BIOASSAYS (CONTINUED)

90-000913 CONTINUED FR 35(1)
[Atchison: Dep. Anim. Ecol., Iowa State Univ., Ames 50011]

90-000914 Scherrer, P. and G. Mille. BIODEGRADATION OF CRUDE OIL IN AN EXPERIMENTALLY POLLUTED PEATY MANGROVE SOIL. *Mar. Pollut. Bull.* 20(9):430-432. 1989. FR 35(1)
[Inst. Carte Int. Vegetation, Univ. Paul Sabatier, 39 allees J. Guesde, 31062 Toulouse Cedex, France]

90-000915 Solski, Adam and Elzbieta Erndt. APPLICATION OF TESTS AT POPULATION AND ECOSYSTEM LEVELS FOR THE ESTIMATION OF TOXICITY OF SELECTED NON-IONIC DETERGENTS. *Acta Hydrobiol.* 29(4):387-402. 1987. In English with Polish summ. FR 35(1)
[Gagarin Coll. Eng., ul. Podgorna 50, 65-246 Zielona Gora, Poland] *Poecilia reticulata.*

90-000916 Spotte, Stephen and Gary Anderson. PLASMA CORTISOL CHANGES IN SEAWATER-ADAPTED MUMMICHOGS (*FUNDULUS HETEROCLITUS*) EXPOSED TO AMMONIA. *Can. J. Fish. Aquat. Sci.* 46(12):2065-2069. 1989. In English with French summ. FR 35(1)
[Sea Res. Found. & Mar. Sci. Inst., Univ. Conn., Noank 06340]

90-000917 Srivastava, Anil K. and Jagadish Mishra. HEPTACHLOR INDUCED HAEMATOLOGICAL AND BIOCHEMICAL CHANGES IN THE INDIAN CATFISH (*HETEROPNEUSTES FOSSILIS* (BLOCH.)). *Acta Hydrobiol.* 29(4):489-495. 1987. In English with Polish summ. FR 35(1)
[Univ. Gorakhpur, Dep. Zool., Lab. Fish Physiol. & Toxicol., Gorakhpur-273 009, U.P., India]

90-000918 Stinson, Colleen M. and Jon Mallatt. BRANCHIAL ION FLUXES AND TOXICANT EXTRACTION EFFICIENCY IN LAMPREY (*PETROMYZON MARINUS*) EXPOSED TO METHYLMERCURY. *Aquat. Toxicol. (Amst.)* 15(3):237-252. 1989. FR 35(1)
[Mallatt: Dep. Zool., Wash. State Univ., Pullman 99164-4220]

90-000919 Thompson, Catherine Q. and John W. Tucker, Jr. TOXICITY OF THE ORGANOPHOSPHATE INSECTICIDE FENTHION, ALONE AND WITH THERMAL FOG CARRIERS, TO AN ESTUARINE COPEPOD AND YOUNG FISH. *Bull. Environ. Contam. Toxicol.* 43(5):789-796. 1989. FR 35(1)
[Div. Life Sci., Coll. Arts & Sci., Univ. New England, Biddeford, ME 04005] *Cynoscion nebulosus, Centropomus undecimalis, Leiostomus xanthurus,* and *Brevoortia patronus.*

90-000920 Tulasi, S. J.; P. U. M. Reddy and J. V. Ramana Rao. EFFECTS OF LEAD ON THE SPAWNING POTENTIAL OF THE FRESH WATER FISH, *ANABAS TESTUDINEUS. Bull. Environ. Contam. Toxicol.* 43(6):858-863. 1989. FR 35(1)
[Dep. Zool., Osmania Univ., Hyderabad-500 007, India]

90-000921 Vernoux, Jean-Paul and Fouzia Talha. FRACTIONATION AND PURIFICATION OF SOME MUSCULAR AND VISCERAL CIGUATOXINS EXTRACTED FROM CARIBBEAN FISH. *Comp. Biochem. Physiol. B Comp. Biochem.* 94(3):499-504. 1989. FR 35(1)
[Inst. Biochim. & Biol. Appl., Univ. Caen, Esplanade de la Paix 14032-Caen Cedex, France] *Caranx bartholomaei, C. latus, Seriola dumerili, Alectis*

TOXICOLOGY; BIOASSAYS (CONTINUED)

90-000921 CONTINUED *ciliaris, Scomberomorus cavalla, Sphyraena barracuda,* and *Gymnothorax funebris.*

90-000922 Vikhman, A. A. and N. A. Ankoudinova. [DEVELOPMENT OF CHOLINESTERASE METHOD MODIFICATION FOR PHOSPHORORGANIC SUBSTANCE DETECTION IN FISH TISSUE.] *In: Notes from the Conference on Fish Disease & Aquatic Toxicology. V. M. Filatova and O. P. Bagrova, editors.* p. 160-166, 270. 1987. In Russian with English summ. FR 35(1)

90-000923 Wallace, Kendall B. GLUTATHIONE-DEPENDENT METABOLISM IN FISH AND RODENTS. *Environ. Toxicol. Chem.* 8(11):1049-1055. 1989. FR 35(1)
[Dep. Pharmacol., School Med., Univ. Minn., Duluth 55812] *Pimephales promelas* and *Oncorhynchus mykiss.*

90-000924 Welch, Timothy J.; Jay R. Stauffer, Jr., and Raymond P. Morgan II. TEMPERATURE PREFERENCE AS AN INDICATOR OF THE CHRONIC TOXICITY OF CUPRIC IONS TO MOZAMBIQUE TILAPIA. *Bull. Environ. Contam. Toxicol.* 43(5):761-768. 1989. FR 35(1)
[School For. Resour., Univ. Ga., Athens 30602] *Tilapia mossambica.*

90-000925 Wishkovsky, Arieh; Elaine S. Mathews and Beverly Anne Weeks. EFFECT OF TRIBUTYLTIN ON THE CHEMILUMINESCENT RESPONSE OF PHAGOCYTES FROM THREE SPECIES OF ESTUARINE FISH. *Arch. Environ. Contam. Toxicol.* 18(6):826-831. 1989. FR 35(1)
[Weeks: Inst. Mar. Sci., School Mar. Sci., Coll. William & Mary, Gloucester Point, VA 23062] *Opsanus tau, Micropogonias undulatus,* and *Trinectes maculatus.*

90-000926 Wlasow, Teresa and Henryka Dabrowska. CELLULAR CHANGES IN THE BLOOD AND HAEMOPOIETIC TISSUES OF COMMON CARP EXPOSED TO SUBLETHAL CONCENTRATION OF AMMONIA. *Aquat. Living Resour.* 2(3):169-174. 1989. In English with French summ. FR 35(1)
[Univ. Agric. & Technol., Dep. Basic Fish. Sci., 10-957 Olsztyn-Kortowo, Poland] *Cyprinus carpio.*

90-000927 Yasuno, M.; T. Hanasato; T. Iwakuma; K. Takamura; R. Ueno and N. Takamura. EFFECTS OF PERMETHRIN ON PHYTOPLANKTON AND ZOOPLANKTON IN AN ENCLOSURE ECOSYSTEM IN A POND. *Verh. Int. Ver. Limnol.* 23(2):770. 1988. Abstract only. FR 35(1)
[Div. Environ. Biol., Natl. Inst. Environ. Studies, Yatabe, Tsukuba 306, Japan]

90-000928 Zaccone, G.; S. Fasulo; P. Lo Cascio; L. Ainis; M. B. Ricca and A. Licata. EFFECTS OF CHRONIC EXPOSURE TO ENDOSULFAN ON COMPLEX CARBOHYDRATES AND ENZYME ACTIVITIES IN GILL AND EPIDERMAL TISSUES OF THE FRESHWATER CATFISH *HETEROPNEUSTES FOSSILIS* (BLOCH). *Eur. Arch. Biol.* 100(2):171-185. 1989. In English with French summ. FR 35(1)
[Dep. Anim. Biol. & Mar. Ecol., Messina Univ., C/da Sperone 31, Papardo, S. Agata, I-98166 Messina, Italy]

RESEARCH AND MANAGEMENT-GENERAL

90-000929 Banarescu, P. M. [THE PROBLEM OF THE ECOLOGICAL RECONSTRUCTION OF THE FRESHWATER FAUNA IN ROMANIA.] *Ocrotirea Nat. Med. Inconjurator* 31(1):9-13. 1987. In Romanian with English summ. From Ecol. Abstr. 89(6):89L/06582. 1989. FR 35(1)

RESEARCH AND MANAGEMENT-GENERAL (CONTINUED)

90-000930 Butz, Ilse. [FISH PRODUCTION AND THE ENVIRONMENT.] *Osterreichs Fischerei* 42(11/12):285-289. 1989. In German. FR 35(1)
[Bundesanstalt Fischereiwirtschaft, A-5310 Mondsee, Scharfling 18, Austria]

90-000931 De Pauw, Niels and Dirk Roels. RELATIONSHIP BETWEEN BIOLOGICAL AND CHEMICAL INDICATORS OF SURFACE WATER QUALITY. *Verh. Int. Ver. Limnol.* 23(3):1553-1558. 1988. FR 35(1)
[Lab. Biol. Res. Aquat. Pollut., State Univ. Ghent, J. Plateaustr. 22, B-9000 Ghent, Belgium]

90-000932 Douglas, Aaron J. ANNOTATED BIBLIOGRAPHY OF ECONOMIC LITERATURE ON WETLANDS. *U.S. Fish Wildl. Serv. Biol. Rep.* 89(19):67p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[U.S. Fish & Wildl. Serv., NERC, 4512 McMurray Ave., Fort Collins, CO 80525-3400]

90-000933 Ellanna, Linda J. and Polly C. Wheeler. WETLANDS AND SUBSISTENCE-BASED ECONOMIES IN ALASKA, U.S.A. *Arct. Alp. Res.* 21(4):329-340. 1989. FR 35(1)
[Dep. Anthropol., Univ. Alaska, Fairbanks 99775]

90-000934 Feigenbaum, D.; D. Swift; C. Blair; W. Priest and M. Bushing. ENVIRONMENTAL COMPARISON OF NATURAL AND MAN-MADE SALTMARSH IN NORFOLK, VA. *Va. J. Sci.* 40(2):79. 1989. Abstract only. FR 35(1)
[Blair: Old Dominion Univ., Norfolk, VA 23508]

90-000935 Gulland, J. A. FISH POPULATIONS AND THEIR MANAGEMENT. *J. Fish Biol.* 35(Suppl. A):1-9. 1989. FR 35(1)
[Renewable Resour. Assessment Group, Imperial Coll., 8 Prince's Gardens, London SW7 2AZ, England]

90-000936 Hochleithner, Martin. [THE STATUS OF *SALMO TRUTTA F. LACUSTRIS* L. IN AUSTRIA.] *Osterreichs Fischerei* 42(1):15-21. 1989. In German. FR 35(1)
[Fischereimeister, Unterbrunnweg 3, 6370 Kitzbuhel, Austria]

90-000937 Honsig-Erlenburg, Wolfgang and Norbert Schulz. [THE LANGSEE AND ITS FISHERY, PART 1.] *Osterreichs Fischerei* 42(10):245-254. 1989. In German. FR 35(1)
[Karntner Inst. Seenforschung, A-9020 Klagenfurt, Austria]

90-000938 Hubbard, Daniel E. GLACIATED PRAIRIE WETLAND FUNCTIONS AND VALUES: A SYNTHESIS OF THE LITERATURE. *U.S. Fish Wildl. Serv. Biol. Rep.* 88(43):50p. 1988. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240] FR 35(1)
[Dep. Wildl. & Fish. Sci., S.D. State Univ., Brookings 57007]

90-000939 Huppert, Daniel D. COMMENTS ON THE ROLE OF OBJECTIVES IN FISHERIES MANAGEMENT. *Lect. Notes Coastal Estuarine Stud.* 28:183-186. 1988. FR 35(1)
[Southwest Fish. Cent., P.O. Box 271, La Jolla, CA 92038]

90-000940 Johnson, Donn M. and Richard G. Walsh. EFFECTS OF PARTICIPANT SKILL ON THE VALUE OF ALTERNATIVE FISHERY MANAGEMENT PRACTICES. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 54:247-254. 1989. FR 35(1)
[Dep. Agric. & Resour. Econ., Colo. State Univ., Fort Collins 80525]

RESEARCH AND MANAGEMENT-GENERAL (CONTINUED)

90-000941 Lebigre, J. M. [RESEARCH PROBLEMS OF THE COASTAL MARSHES OF MADAGASCAR WITH A VIEW TO THEIR PROTECTION AND MANAGEMENT.] *Madagascar Rev. Geogr.* No. 44. p. 45-74. 1984. (1988). In French with English summ. From Ecol. Abstr. 89(6):89L/06583. 1989. FR 35(1)

90-000942 Lenhart, Cynthia. FEDERAL FISH AND WILDLIFE PROGRAM BUDGETS. *Audubon Wildl. Rep.* 1989/90:546-570. 1989. FR 35(1)

90-000943 Maitland, P. S. FISH INTRODUCTIONS AND TRANSLOCATIONS - THEIR IMPACT IN THE BRITISH ISLES. *Inst. Terrestrial Ecol. (NERC) Symp.* No. 19. p. 57-65. 1987. FR 35(1)
[Inst. Terrestrial Ecol., Bush Estate, Penicuik, Midlothian, Scotland]

90-000944 Maitland, P. S. and A. K. Turner, editors. ANGLING AND WILDLIFE IN FRESH WATERS. PROCEEDINGS OF A SYMPOSIUM ORGANIZED BY THE SCOTTISH FRESHWATER GROUP AND THE BRITISH ECOLOGICAL SOCIETY, UNIVERSITY OF STIRLING, 30 OCTOBER 1985. *Inst. Terrestrial Ecol. (NERC) Symp.* No. 19. 84p. 1987. FR 35(1)
[Inst. Terrestrial Ecol., Bush Estate, Penicuik, Midlothian, Scotland] Selected papers indexed in this issue of *Fisheries Review*.

90-000945 Marasco, Richard J. and Marc L. Miller. THE ROLE OF OBJECTIVES IN FISHERIES MANAGEMENT. *Lect. Notes Coastal Estuarine Stud.* 28:171-183. 1988. FR 35(1)
[NOAA, Northwest & Alaska Fish. Cent., 7600 Sand Point Way N.E., Bin C15700, Seattle, WA 98115]

90-000946 Miracle, M. R.; M. Serra; R. Oltra and E. Vicente. DIFFERENTIAL DISTRIBUTIONS OF *BRACHIONUS* SPECIES IN THREE COASTAL LAGOONS. *Verh. Int. Ver. Limnol.* 23(4):2006-2015. 1988. FR 35(1)
[Dep. Ecol., Fac. Cienc. Biol., Univ. Valencia, E-46100 Burjasot, Spain]

90-000947 Morrison, B. R. S. USE AND EFFECTS OF PISCICIDES. *Inst. Terrestrial Ecol. (NERC) Symp.* No. 19. p. 47-52. 1987. FR 35(1)
[Dep. Agric. & Fish., Freshwater Fish. Lab., Pitlochry, Scotland]

90-000948 Murphy, K. J. and H. G. Pearce. HABITAT MODIFICATION ASSOCIATED WITH FRESHWATER ANGLING. *Inst. Terrestrial Ecol. (NERC) Symp.* No. 19. p. 31-46. 1987. FR 35(1)
[Dep. Bot., Univ. Glasgow, Glasgow, Scotland]

90-000949 Myers, Ralph E. NUTRIENT DYNAMICS IN DINGLE MARSH, BEAR LAKE NATIONAL WILDLIFE REFUGE, IDAHO. *M.S. thesis, Univ. Idaho* 59p. 1988. FR 35(1)

90-000950 Nelson, Robert D. and Teresa A. Raml. "JOIN US": CHALLENGE COST-SHARE FOR WILDLIFE AND FISHERIES ON NATIONAL FORESTS. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 54:277-281. 1989. FR 35(1)
[Wildl. & Fish., U.S. For. Serv., Washington, DC]

90-000951 Nielsen, T. G. and S. J. Horsted. [THE FISH POPULATION IN UTTERSLEV BOG 1985.] *Flora Fauna* 93(3):67-73. 1987. In Norwegian with English summ. From Ecol. Abstr. 89(6):89L/05907. 1989. FR 35(1)
Esox lucius, Perca fluviatilis, Tinca tinca, Carassius auratus, C. carassius, Abramis brama, and *Rutilus rutilus* in Norway.

RESEARCH AND MANAGEMENT-GENERAL (CONTINUED)

90-000952 Oechel, Walter C. ECOLOGY OF AN ARCTIC WATERSHED: LANDSCAPE PROCESSES AND LINKAGES. PROCEEDINGS OF A SYMPOSIUM AT THE UNIVERSITY OF OHIO IN COLUMBUS, OHIO, USA, 9-13 AUGUST 1987. *Holarct. Ecol.* 12(3):225-334. 1989. FR 35(1)
[Biol. Dep., San Diego State Univ., San Diego, CA 92182]

90-000953 Olsen, Arnold. THE ECONOMIC VALUE OF HUNTING AND FISHING IN MONTANA. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 54:239-246. 1989. FR 35(1)
[Dep. Fish, Wildl. & Parks, Helena, MT]

90-000954 Parma, S. MANAGEMENT OF WATER QUALITY IN SURFACE WATERS OF THE NETHERLANDS. *Verh. Int. Ver. Limnol.* 23(3):1465-1470. 1988. FR 35(1)
[Limnol. Inst., Rijkstr. 6, 3631 AC Nieuwersluis, Netherlands]

90-000955 Parry, M. L. MULTI-PURPOSE USE OF WATERS. *Inst. Terrestrial Ecol. (NERC) Symp.* No. 19. p. 66-71. 1987. FR 35(1)
[Severn Trent Water Authority, 2297 Coventry Rd., Birmingham, England]

90-000956 Phillips, Jonathan D. FLUVIAL SEDIMENT STORAGE IN WETLANDS. *Water Resour. Bull.* 25(4):867-873. 1989. FR 35(1)
[Dep. Geogr. & Planning, East Carolina Univ., Greenville, NC 27858-4353]

90-000957 Polishchuk, V. V. PROGRESS IN AQUATIC FAUNAL STUDIES IN THE USSR. *Hydrobiol. J. (Engl. Transl. Gidrobiol. Zh.)* 23(6):9-27. 1987. From Ecol. Abstr. 89(6):89L/05888. 1989. FR 35(1)

90-000958 Roberg, Rex; Steve N. Wilson and Scott Henderson. ECONOMIC VALUES OF ARKANSAS' SPORT FISHERIES. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 54:233-238. 1989. FR 35(1)
[Game & Fish Comm., Little Rock, AR]

90-000959 Roth, Myron. THE MURRAY A. NEWMAN FIELD STATION: A NEW FACILITY FOR NATURAL HISTORY RESEARCH. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 383-389. 1989. FR 35(1)

90-000960 Rutzler, K. and C. Feller. MANGROVE SWAMP COMMUNITIES. *Oceanus* 30(4):16-24. 1987-1988. From Ecol. Abstr. 89(6):89L/05797. 1989. FR 35(1)

90-000961 Salwasser, Hal; Glen Contreras; Michael Dombeck and Karl Siderits. A MARKETING APPROACH TO FISH AND WILDLIFE PROGRAM MANAGEMENT. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 54:261-270. 1989. FR 35(1)
[U.S. For. Serv., Washington, DC]

90-000962 Schalles, John F. and Donald J. Shure. HYDROLOGY, COMMUNITY STRUCTURE, AND PRODUCTIVITY PATTERNS OF A DYSTROPHIC CAROLINA BAY WETLAND. *Ecol. Monogr.* 59(4):365-385. 1989. FR 35(1)
[Biol. Dep., Creighton Univ., Omaha, NE 68178]

90-000963 Sokolov, L. I. and M. I. Shatunovskiy. SEVENTY YEARS OF SOVIET ICHTHYOLOGY. *Hydrobiol. J. (Engl. Transl. Gidrobiol. Zh.)* 23(5):45-53. 1987. From Ecol. Abstr. 89(5):89L/04761. 1989. FR 35(1)

RESEARCH AND MANAGEMENT-GENERAL (CONTINUED)

90-000964 Vyshkvartsev, D. I.; D. D. Gabaev and E. B. Lebedev. [ALL-UNION CONFERENCE ON ARTIFICIAL REEFS IN FISHERIES.] *Mar. Biol. (Vladivostok)* 1989(3):95-96. 1989. In Russian. FR 35(1)

90-000965 Wang, Cheng-Hai; Osamu Sato; Katsuaki Nashimoto and Katsutaro Yamamoto. [HYDRODYNAMIC CHARACTERISTICS OF EDDY BEHIND TWO ARRANGED COMPONENTS OF AN ARTIFICIAL REEF STRUCTURE.] *Bull. Fac. Fish. Hokkaido Univ.* 40(3):182-192. 1989. In Japanese with English summ. FR 35(1)
[Lab. Fishing Gear Eng., Fac. Fish., Hokkaido Univ., Hakodate, Japan]

90-000966 Wilson, James A. COMMENTS ON PASSIVE MANAGEMENT. *Lect. Notes Coastal Estuarine Stud.* 28:274-277. 1988. FR 35(1)
[Univ. Maine, Dep. Econ., Orono 04469]

90-000967 Wilson, Steve N. THE ARKANSAS GAME AND FISH FOUNDATION: A NEW FUNDING PARADIGM. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 54:289-294. 1989. FR 35(1)
[Game & Fish Comm., Little Rock, AR]

90-000968 Wooster, Warren S., editor. FISHERY SCIENCE AND MANAGEMENT: OBJECTIVES AND LIMITATIONS. *Lect. Notes Coastal Estuarine Stud.* 28:339p. 1988. FR 35(1)
[Univ. Wash., Inst. Mar. Studies, Mail Stop HF-05, Seattle 98195] Selected chapters indexed in this issue of *Fisheries Review*.

90-000969 Wooster, Warren S. BIOLOGICAL OBJECTIVES OF FISHERY MANAGEMENT. *Lect. Notes Coastal Estuarine Stud.* 28:1-4. 1988. FR 35(1)
[Univ. Wash., Inst. Mar. Studies, Mail Stop HF-05, Seattle 98195]

ADMINISTRATION AND PLANNING

90-000970 McCaughran, Donald A., director. CELEBRATING THE PACIFIC HALIBUT FISHERY CENTENNIAL, 1888-1988. *Int. Pac. Halibut Comm. Annual Rep.* 62p. 1988. FR 35(1)
[Int. Pac. Halibut Comm., P.O. Box 95009, Seattle, WA 98145-2009]

90-000971 Miller, Edward R. PENNSYLVANIA FISH COMMISSION ANNUAL REPORT. *Pa. Angler* 59(1):7-24. 1989. FR 35(1)
[P.O. Box 1673, Harrisburg, PA 17105-1673]

HABITAT ALTERATIONS

90-000972 Arnekleiv, J. V. [FISH POPULATIONS AND BENTHOS IN THE RIVER NEA AFTER CONSTRUCTION OF WEIRS.] *Inf. Biotopjusteringsprosjektet NVE-Vassdragskirektor.* No. 28. 42p. 1988. In Norwegian with English summ. From Ecol. Abstr. 89(6):89L/05887. 1989. FR 35(1)
Salmo trutta and *Lota lota* in Norway.

90-000973 Bolin, Bert; Bo R. Doos; Jill Jager and Richard A. Warrick, editors. THE GREENHOUSE EFFECT, CLIMATIC CHANGE, AND ECOSYSTEMS. *John Wiley & Sons, Inc.* Scope 29. 541p. 1986. FR 35(1)
[Dep. Meteorol., Univ. Stockholm, Stockholm, Sweden]

HABITAT ALTERATIONS (CONTINUED)

90-000974 Bonetto, A. A.; J. R. Wais and H. P. Castello. THE INCREASING DAMMING OF THE PARANA BASIN AND ITS EFFECTS ON THE LOWER REACHES. *Regul. Rivers Res. Manage.* 4(4):333-346. 1989. FR 35(1)
[Consejo Nac. Invest. Cient. & Tecn., Independencia 2047, 1225 Buenos Aires, Argentina]

90-000975 Bryan, Sheryl A. and Larry A. Nielsen. ASSESSING PUBLIC AND PROFESSIONAL KNOWLEDGE OF LAND USE IMPACTS ON COLDWATER ECOSYSTEMS USING THE DELPHI METHOD. *Va. J. Sci.* 40(2):78. 1989. Abstract only. FR 35(1)
[Dep. Fish. & Wildl. Sci., VPI&SU, Blacksburg, VA 24061]

90-000976 Ferns, Peter. CURRENT PROSPECTS FOR THE SEVERN BARRAGE. *Biologist* 36(4):201-206. 1989. FR 35(1)
[School Pure & Appl. Biol., Univ. Wales, Coll. Cardiff, P.O. Box 915, Cardiff CF1 3TL, Wales]

90-000977 Legeyda, I. S.; V. L. Dolinskiy and T. D. Rogozyanskaya. EFFECT OF BEAVERS ON AQUATIC FAUNA. *Hydrobiol. J. (Engl. Transl. Gidrobiol. Zh.)* 23(6):98-100. 1987. From Ecol. Abstr. 89(6):89L/05889. 1989. FR 35(1)

90-000978 Minshall, G. Wayne; James T. Brock and John D. Varley. WILDFIRES AND YELLOWSTONE'S STREAM ECOSYSTEMS. A TEMPORAL PERSPECTIVE SHOWS THAT AQUATIC RECOVERY PARALLELS FOREST SUCCESSION. *BioScience* 39(10):707-715. 1989. FR 35(1)
[Dep. Biol. Sci., Idaho State Univ., Pocatello 83209] *Oncorhynchus mykiss.*

90-000979 Morton, R. M. HYDROLOGY AND FISH FAUNA OF CANAL DEVELOPMENTS IN AN INTENSIVELY MODIFIED AUSTRALIAN ESTUARY. *Estuarine Coastal Shelf Sci.* 28(1):43-58. 1989. From Deep-Sea Res. Part B Oceanogr. Lit. Rev. 36(9):5253. 1989. FR 35(1)
[Fish. Manage. Branch, Dep. Primary Ind., G.P.O. Box 46, Brisbane, Qld. 4001, Australia]

90-000980 Palmer, R. W. and J. H. O'Keeffe. TEMPERATURE CHARACTERISTICS OF AN IMPOUNDED RIVER. *Arch. Hydrobiol.* 116(4):471-485. 1989. FR 35(1)
[Inst. Freshwater Studies, Rhodes Univ., Grahamstown 6140, South Africa]

90-000981 Pauly, Daniel; Geronimo Silvestre and Ian R. Smith. ON DEVELOPMENT, FISHERIES AND DYNAMITE: A BRIEF REVIEW OF TROPICAL FISHERIES MANAGEMENT. *Nat. Resour. Modeling* 3(3):307-329. 1989. FR 35(1)
[Int. Cent. Living Aquat. Resour. Manage. (ICLARM), Makati, Philippines]

90-000982 Smythe, Robert B. THE U.S. ARMY CORPS OF ENGINEERS. *Audubon Wildl. Rep.* 1989/90:3-56. 1989. FR 35(1)

90-000983 Southworth, Anne D. CONSERVING SOUTHEASTERN COASTAL WETLANDS. *Audubon Wildl. Rep.* 1989/90:223-255. 1989. FR 35(1)

90-000984 Stockmann, A. [WATERWAY MAINTENANCE - AND ITS CONSEQUENCES.] *Verh. Ges. Oekol.* No. 16. p. 461-464. 1986-1987. In German with English summ. From Ecol. Abstr. 89(6):89L/06578. 1989. FR 35(1)

HABITAT ALTERATIONS (CONTINUED)

90-000985 Swan, George A. CHINOOK SALMON SPAWNING SURVEYS IN DEEP WATERS OF A LARGE, REGULATED RIVER. *Regul. Rivers Res. Manage.* 4(4):355-370. 1989. FR 35(1)
[Coastal Zone & Estuarine Studies Div., Northwest & Alaska Fish. Cent., NMFS, NOAA, 2725 Montlake Blvd. E., Seattle, WA 98112] *Oncorhynchus tshawytscha* in Washington.

REGULATIONS

90-000986 Neilson, John D. and W. R. Bowering. MINIMUM SIZE REGULATIONS AND THE IMPLICATIONS FOR YIELD AND VALUE IN THE CANADIAN ATLANTIC HALIBUT (*HIPPOGLOSSUS HIPPOGLOSSUS*) FISHERY. *Can. J. Fish. Aquat. Sci.* 46(11):1899-1903. 1989. In English with French summ. FR 35(1)
[Mar. Fish Div., Dep. Fish. & Oceans, Biol. Stn., St. Andrews, NB, Canada E0G 2X0]

90-000987 Schwomma, Otto. [THE INFLUENCE OF MINIMUM SIZE LIMITS OF BROWN TROUT ON THE POPULATION AND ANGLER CATCH.] *Osterreichs Fischerei* 42(4):87-96. 1989. In German with English summ. FR 35(1)
[Sachverstandiger Fischerei & Abwasser, c/o Osterreichische Fischereigesellschaft, gegr. 1880, Elisabethstr. 22, A-1010 Vienna, Austria] *Salmo trutta* in Austria.

MARKING AND TAGGING

90-000988 Godo, Olav Rune. THE USE OF TAGGING STUDIES TO DETERMINE THE OPTIMAL TIME FOR ESTIMATING ACOUSTIC ABUNDANCE OF SPAWNING COD. *Fish. Res. (Amst.)* 8(2):129-140. 1989. FR 35(1)
[Inst. Mar. Res., P.O. Box 1870, 5024 Bergen, Norway] *Gadus morhua* in Norway.

90-000989 Harvey, W. D. and D. L. Campbell. RETENTION OF PASSIVE INTEGRATED TRANSPONDER TAGS IN LARGEMOUTH BASS BROOD FISH. *Prog. Fish-Cult.* 51(3):164-166. 1989. FR 35(1)
[Fish Hatcheries Branch, Parks & Wildl. Dep., 4200 Smith School Rd., Austin, TX 78744] *Micropterus salmoides.*

STOCKING AND INTRODUCTIONS

90-000990 Chandler, Gwynne Lilia. RELATIVE SURVIVAL AND GROWTH OF STEELHEAD FRY EMERGING EARLY VERSUS LATE AND POTENTIAL USE OF DIPEPTIDASE AS A GENETIC MARKER IN STEELHEAD. *M.S. thesis, Univ. Idaho* 84p. 1988. FR 35(1)
Oncorhynchus mykiss.

90-000991 Garcia de Leaniz, C.; E. Verspoor and A. D. Hawkins. GENETIC DETERMINATION OF THE CONTRIBUTION OF STOCKED AND WILD ATLANTIC SALMON, *SALMO SALAR* L., TO THE ANGLING FISHERIES IN TWO SPANISH RIVERS. *J. Fish Biol.* 35(Suppl. A):261-270. 1989. FR 35(1)
[Dep. Agric. & Fish. Scotland, Mar. Lab., P.O. Box 101, Victoria Rd., Aberdeen AB9 8DB, Scotland]

STOCKING AND INTRODUCTIONS (CONTINUED)

90-000992 Harrison, Keith; Oliver Crimmen; Robert Travers; James Maikweki and David Mutoro. BALANCING THE SCALES IN LAKE VICTORIA. *Biologist* 36(4):189-191. 1989. FR 35(1)
[Crimmen: Dep. Zool. (Fish Sect.), British Mus. (Nat. Hist.), Cromwell Rd., London SW7 5BD, England] *Lates niloticus*.

90-000993 Hesthagen, T.; B. Jonsson and J. Skurdal. SURVIVAL, EXPLOITATION AND MOVEMENT OF TAKEABLE SIZE BROWN TROUT, *SALMO TRUTTA* L., IN A NORWEGIAN RIVER. *Aquacult. Fish. Manage.* 20(4):475-484. 1989. FR 35(1)
[Fish Res. Div., Norwegian Inst. Nat. Res., Tungasletta 2, N-7004 Trondheim, Norway]

90-000994 Ita, E. O.; E. K. Sado; F. C. Okoye; C. T. Madu; W. S. Omorinkoba; A. I. Arowosoge and A. Pandogari. THE FIRST INTRODUCTION OF RIVER NIGER CLUPEIDS INTO TIGA LAKE, IN KANO STATE, NIGERIA. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 68-70. 1989. FR 35(1)
Pellonula afzeliusi and *Physailia pellucida*.

90-000995 Jensen, F. [POLLUTION AND ADULTERATION OF FRESHWATER FISH IN DENMARK.] *Flora Fauna* 93(4):105-110. 1987. In Norwegian with English summ. From Ecol. Abstr. 89(6):89L/05906. 1989. FR 35(1)
Data for 16 species.

FISHING GEAR AND TECHNIQUES

90-000996 Ferro, R. S. T. OBJECTIVE MEASUREMENT OF THE THICKNESS OF NETTING TWINE USED IN THE FISHING INDUSTRY. *Fish. Res. (Amst.)* 8(2):103-112. 1989. FR 35(1)
[DAFS Mar. Lab., P.O. Box 101, Victoria Rd., Aberdeen AB9 8DB, Scotland]

90-000997 Fuwa, Shigeru. [FISH HERDING MODEL BY GROUND ROPES CONSIDERING REACTION OF FISH.] *Nippon Suisan Gakkaishi* 55(10):1767-1771. 1989. In Japanese with English summ. FR 35(1)
[Fac. Fish., Kagoshima Univ., Kagoshima 890, Japan]

90-000998 Galbraith, R. D. and J. Main. SEPARATOR PANELS FOR DUAL PURPOSE FISH/PRAWN TRAWLS. *Scott. Fish. Inf. Pamph.* No. 16. 8p. 1989. Available from Dep. Agric. & Fish. Scotland, Mar. Lab., P.O. Box 101, Victoria Rd., Torry, Aberdeen AB9 8DB, Scotland. FR 35(1)

90-000999 Imai, Takehiko and Tsuyoshi Nakamura. [FLUID DYNAMICAL DRAG COEFFICIENT ON THE WEAVER'S-KNOT NETTING RELATIVE TO REYNOLDS NUMBER.] *Nippon Suisan Gakkaishi* 55(10):1753-1757. 1989. In Japanese with English summ. FR 35(1)
[Fac. Fish. Kagoshima Univ., Shimoarata, Kagoshima 890, Japan]

90-001000 Karasuno, Keiichi; Syunji Januma and Tsukasa Kimura. [EXPERIMENTAL STUDIES ON HYDRODYNAMIC FORCES AND MOMENT FOR MANEUVERING MOTIONS OF FISHING VESSELS (5): ON THE EFFECTS OF SHIP TRIM AND DRAFT CONDITIONS.] *Bull. Fac. Fish. Hokkaido Univ.* 40(2):125-137. 1989. In Japanese with English summ. FR 35(1)
[Lab. Eng. Fishing Boat, Fac. Fish., Hokkaido Univ., Hakodate, Japan]

FISHING GEAR AND TECHNIQUES (CONTINUED)

90-001001 Lee, Chun-woo; Shuzo Igarashi; Takayoshi Mikami and Nariharu Yamashita. [BEHAVIOUR STUDIES OF WALLEYE POLLOCK *THERAGRA CHALCOGRAMMA* TO A BAIT AND BAITED HOOK FOR HOOK DESIGN.] *Nippon Suisan Gakkaishi* 55(9):1553-1558. 1989. In Japanese with English summ. FR 35(1)
[Fac. Fish., Hokkaido Univ., Hakodate 041, Japan]

90-001002 Machii, Tadanobu and Yukio Nose. SIZE OF PERUVIAN SMALL PURSE SEINES. *Nippon Suisan Gakkaishi* 55(9):1493-1497. 1989. In English with Japanese summ. FR 35(1)
[Dep. Mar. Sci. & Technol., Tokyo Univ. Fish., Konan, Mainato, Tokyo 108, Japan]

90-001003 Mitra, P. M.; K. K. Ghosh; B. N. Saigal; N. D. Sarkar; A. K. Roy; N. C. Mondal and A. R. Paul. FISHING GEARS OF THE UPPER AND THE MIDDLE HOOGHLY ESTUARY. *Cent. Inland Fish. Res. Inst. Barrackpore Bull.* No. 49. 24p. 1987. FR 35(1)
[Cent. Inland Capture Fish. Res. Inst., Barrackpore-743 101, West Bengal, India] *Hilsa ilisha.*

90-001004 Sakai, Hisaharu; Yosuke Kitano; Katsuyuki Yamane and Hayao Akizawa. [PREVENTIVE MEASURES AGAINST VIBRATION OF FISHING BOAT.] *J. Tokyo Univ. Fish.* 75(1):75-85. 1988. In Japanese with English summ. FR 35(1)
[RT/V Shinyo-maru, Tokyo Univ. Fish., 5-7 Konan 4, Minato-ku, Tokyo 108, Japan]

90-001005 Sasakawa, Yasuo. [THE DAMAGE OF SUBMERGED BOTTOM SETNETS BY NORTHERN SEA LIONS AND ITS ENCOUNTER PLAN.] *Bull. Fac. Fish. Hokkaido Univ.* 40(2):116-124. 1989. In Japanese with English summ. FR 35(1)
[Lab. Operation Technol. Fishing, Fac. Fish., Hokkaido Univ., Hakodate, Japan]

90-001006 Solarin, B. B. MESH SELECTIVITY OF MONOFILAMENT (POLYAMIDE) GILLNETS FOR THE BONGA *(ETHMALOSA FIMBRIATA)* IN LAGOS LAGOON, NIGERIA. *J. Cons. Cons. Int. Explor. Mer* 46(1):109-110. 1989. FR 35(1)
[Nigerian Inst. Oceanogr. & Mar. Res., PMB 12729, Victoria Island, Lagos, Nigeria]

90-001007 Yamada, Sakutaro; Kouji Takagi; Nobuo Hirayama and Kazumi Sakuramoto. A STATISTICAL STUDY ON MAZUME PHENOMENON BY OUTDOOR TANK EXPERIMENTS. *Nippon Suisan Gakkaishi* 55(9):1547-1552. 1989. In English with Japanese summ. FR 35(1)
[Dep. Fish. Resour. Manage., Tokyo Univ. Fish., Konan, Minato, Tokyo 108, Japan] *Oncorhynchus mykiss.*

FISHWAYS, FISH PASSAGE THROUGH DAMS, ETC.

90-001008 Harris, John H. FISH PASSAGE IN AUSTRALIA. *In: Stream Protection - The Management of Rivers for Instream Uses. Ian C. Campbell, editor.* p. 135-141. 1986. FR 35(1)
[Fish. Res. Inst., Dep. Agric., P.O. Box K220, Haymarket, N.S.W. 2000, Australia]

FISHWAYS, FISH PASSAGE THROUGH DAMS, ETC. (CONTINUED)

90-001009 Larinier, M. and J. Dartiguelongue. [THE MOVEMENT OF MIGRATORY FISH: TRANSIT THROUGH TURBINES OF HYDROELECTRIC INSTALLATIONS.] *Bull. Fr. Peche Piscic.* 312-313(1-2):1-90. 1989. In French with English summ. FR 35(1)
[CSP-CEMAGREF, BP 26, 31321 Castanet-Tolosan Cedex, France]

90-001010 Robertson, Cynthia A. STRESS INDICES IN CHINOOK SALMON SMOLTS CONFINED WITH STEELHEAD TROUT SMOLTS. *M.S. thesis, Univ. Idaho* 29p. 1988. FR 35(1)
Oncorhynchus mykiss and *O. tshawytscha.*

MATHEMATICS, STATISTICAL METHODS, AND MODELING

90-001011 Aoki, Ichiro; Tadashi Inagaki; Isamu Mitani and Takeo Ishii. [A PROTOTYPE EXPERT SYSTEM FOR PREDICTING FISHING CONDITIONS OF ANCHOVY OFF THE COAST OF KANAGAWA PREFECTURE.] *Nippon Suisan Gakkaishi* 55(10):1777-1783. 1989. In Japanese with English summ. FR 35(1)
[Ocean Res. Inst., Univ. Tokyo, Nakano, Tokyo 164, Japan]

90-001012 Aspinall, R. USE OF SPECIES-AREA RELATIONSHIPS FOR ANALYSIS OF BIOLOGICAL ATLAS DATA. *Area* 29(4):347-351. 1988. From Ecol. Abstr. 89(6):89L/05702. 1989. FR 35(1)

90-001013 Bartholow, John M. STREAM TEMPERATURE INVESTIGATIONS: FIELD AND ANALYTIC METHODS. INSTREAM FLOW INFORMATION PAPER NO. 13. *U.S. Fish Wildl. Serv. Biol. Rep.* 89(17):139p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[U.S. Fish & Wildl. Serv., Natl. Ecol. Res. Cent., 4512 McMurray Ave., Fort Collins, CO 80525-3400]

90-001014 Beauchamp, J. J.; D. J. Downing and S. F. Railsback. COMPARISON OF REGRESSION AND TIME-SERIES METHODS FOR SYNTHESIZING MISSING STREAMFLOW RECORDS. *Water Resour. Bull.* 25(4):961-975. 1989. FR 35(1)
[ORNL, P.O. Box 2009, Bldg. 9207A, Oak Ridge, TN 37831-8083]

90-001015 Bikov, B. A.; V. N. Yakovlev and B. I. Dubrovin. [PROBLEMS OF PREDICTION IN FISHERY AND THE WAYS OF ITS DEVELOPMENT.] *Tr. Atl. Nauchno-Issled. Inst. Rybn. Khoz. Okeanogr.* No. 2089. p. 4-18, 130-131. 1988. In Russian with English summ. FR 35(1)

90-001016 Bocharov, L. N. [THE STATE OF FISHERIES FORECASTS IN FAR-EASTERN SEAS: APPLICATION OF SYSTEM ANALYSIS.] *Mar. Biol. (Vladivostok)* 1989(1):3-11. 1989. In Russian With English summ. FR 35(1)
[Pac. Res. Inst. Fish. & Oceanogr., Vladivostok 690600, USSR]

90-001017 Boisclair, D. and W. C. Leggett. THE IMPORTANCE OF ACTIVITY IN BIOENERGETICS MODELS APPLIED TO ACTIVELY FORAGING FISHES. *Can. J. Fish. Aquat. Sci.* 46(11):1859-1867. 1989. In English with French summ. FR 35(1)
[Dep. Sci. Biol., Univ. Montreal, C.P. 6126, Succursale A, Montreal, PQ, Canada H3C 3J7] *Perca flavescens.*

90-001018 Browder, Joan A.; L. Nelson May, Jr.; Alan Rosenthal; James G. Gosselink and Robert H. Baumann. MODELING FUTURE TRENDS IN WETLAND LOSS AND BROWN SHRIMP PRODUCTION IN LOUISIANA USING THEMATIC MAPPER IMAGERY.

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

90-001018 CONTINUED *Remote Sens. Environ.* 28:45-59. 1989. FR 35(1)
[NMFS, Southeast Fish. Cent., 75 Virginia Beach Dr., Miami, FL 33149]

90-001019 Byrne, Alan F. A MODEL TO ASSESS THE EFFECTS OF HATCHERY SUPPLEMENTATION PROGRAMS ON SMOLT, RECRUIT, AND WILD STEELHEAD ABUNDANCE IN THE CLEARWATER RIVER, IDAHO. *M.S. thesis, Univ. Idaho* 95p. 1988. FR 35(1)
Oncorhynchus mykiss.

90-001020 Cochran, Philip A. and James F. Kitchell. A MODEL OF FEEDING BY PARASITIC LAMPREYS. *Can. J. Fish. Aquat. Sci.* 46(11):1845-1852. 1989. In English with French summ. FR 35(1)
[Div. Nat. Sci., St. Norbert Coll., De Pere, WI 54114] *Petromyzon marinus.*

90-001021 Cone, R. Scott. THE NEED TO RECONSIDER THE USE OF CONDITION INDICES IN FISHERY SCIENCE. *Trans. Am. Fish. Soc.* 118(5):510-514. 1989. FR 35(1)
[AT&T, Stat. Analysis & Surv. Res., Rm. 7144M1, 295 N. Maple Ave., Basking Ridge, NJ 07920] *Salvelinus fontinalis.*

90-001022 Csirke, J.; J. F. Caddy and S. Garcia. METHODS OF SIZE-FREQUENCY ANALYSIS AND THEIR INCORPORATION IN PROGRAMS FOR FISH STOCK ASSESSMENT IN DEVELOPING COUNTRIES: FAO INTEREST IN RECEIVING ADVICE. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 1-6. 1987. 35(1)
[Fish. Dep., FAO, Via delle Terme di Caracalla, 00100 Rome, Italy]

90-001023 Cushing, J. M. A STRONG ERGODIC THEOREM FOR SOME NONLINEAR MATRIX MODELS FOR THE DYNAMICS OF STRUCTURED POPULATIONS. *Nat. Resour. Modeling* 3(3):331-357. 1989. FR 35(1)
[Dep. Math. & Program Appl. Math., Univ. Ariz., Tucson 85721]

90-001024 Damm, U. SOME MODIFICATIONS OF EBERT'S METHOD TO ESTIMATE GROWTH AND MORTALITY PARAMETERS FROM AVERAGE LENGTHS IN A POPULATION. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 45-51. 1987. FR 35(1)
[Inst. Kusten & Binnenfischerei, Lab. Cuxhaven, Bei Der Alten Liebe 1, D-2190 Cuxhaven, West Germany]

90-001025 Dubrovin, B. I.; V. N. Yakovlev and B. A. Bikov. [STATE, PROBLEMS AND PROSPECTS OF SHORT-TERM FISHERY PREDICTION.] *Tr. Atl. Nauchno-Issled. Inst. Rybn. Khoz. Okeanogr.* No. 2089. p. 19-30, 131. 1988. In Russian with English summ. FR 35(1)

90-001026 Duckson, Don W., Jr. LAND-USE AND WATER-QUALITY RELATIONSHIPS IN THE GEORGES CREEK BASIN, MARYLAND. *Water Resour. Bull.* 25(4):801-807. 1989. FR 35(1)
[Dep. Geogr., Frostburg State Univ., Frostburg, MD 21532]

90-001027 Ebert, T. A. ESTIMATING GROWTH AND MORTALITY PARAMETERS BY NONLINEAR REGRESSION USING AVERAGE SIZE IN CATCHES. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 35-44. 1987. FR 35(1)

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

90-001027 CONTINUED
[Dep. Biol., San Diego State Univ., San Diego, CA 98182] *Hippoglossoides elassodon.*

90-001028 Edwards, Steven F. FORECASTS OF IN-STATE PARTICIPATION IN MARINE RECREATIONAL FISHING. *Trans. Am. Fish. Soc.* 118(5):564-572. 1989. FR 35(1)
[Northeast Fish. Cent., NMFS, Woods Hole, MA 02543]

90-001029 Fox, William W., Jr. COMMENTS ON BIOLOGICAL ASSUMPTIONS IN FISHERY MANAGEMENT. *Lect. Notes Coastal Estuarine Stud.* 28:103-105. 1988. FR 35(1)
[Rosenstiel School Mar. & Atmos. Sci., Univ. Miami, 4600 Rickenbacker Causeway, Miami, FL 33149]

90-001030 Freedman, H. I. and J. B. Shukla. THE EFFECT OF A PREDATOR RESOURCE ON A DIFFUSIVE PREDATOR PREY SYSTEM. *Nat. Resour. Modeling* 3(3):359-383. 1989. FR 35(1)
[Dep. Math., Univ. Alberta, Edmonton, AB, Canada T6G 2G1]

90-001031 Georgakakos, Aris P. THE VALUE OF STREAMFLOW FORECASTING IN RESERVOIR OPERATION. *Water Resour. Bull.* 25(4):789-800. 1989. FR 35(1)
[School Civil Eng., Ga. Inst. Technol., Atlanta 30332]

90-001032 Gulland, J. A. LENGTH-BASED METHODS IN FISHERIES RESEARCH: FROM THEORY TO APPLICATION. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 335-342. 1987. FR 35(1)
[Mar. Resour. Assess. Group, Cent. Environ. Technol., Imperial Coll. Sci. & Technol., 48 Prince's Gardens, London SW7 1LU, England]

90-001033 Hampton, J. and J. Majkowski. AN EXAMINATION OF THE RELIABILITY OF THE ELEFAN COMPUTER PROGRAMS FOR LENGTH-BASED STOCK ASSESSMENT. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 203-216. 1987. FR 35(1)
[Div. Fish. Res., Mar. Lab., CSIRO, GPO Box 1538, Hobart, Tasm. 7001, Australia]

90-001034 Hampton, J. and J. Majkowski. A SIMULATION MODEL FOR GENERATING CATCH LENGTH-FREQUENCY DATA. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 193-202. 1987. FR 35(1)
[Div. Fish. Res., Mar. Lab., CSIRO, GPO Box 1538, Hobart, Tasm. 7001, Australia]

90-001035 Hart, P. J. B. PREDICTING RESOURCE UTILIZATION: THE UTILITY OF OPTIMAL FORAGING MODELS. *J. Fish Biol.* 35(Suppl. A):271-277. 1989. FR 35(1)
[Dep. Zool., Univ. Leicester, Leicester LE1 7RH, England]

90-001036 Healey, M. C. COMMENTS ON POLICY ANALYSIS AND THE INCORPORATION OF BIOLOGICAL OBJECTIVES INTO FISHERY MANAGEMENT DECISIONS. *Lect. Notes Coastal Estuarine Stud.* 28:164-169. 1988. FR 35(1)
[Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6]

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

90-001037 Hidaka, Takeshi; Kunio Shirakihara and Yasunori Ouchi. [STOCK SIZE ESTIMATION OF RED SEA BREAM IN THE CHIKUZENKAI FROM COHORT ANALYSIS.] *Nippon Suisan Gakkaishi* 55(8):1311-1318. 1989. In Japanese with English summ. FR 35(1)
[Fukuoka Prefectural Office, Higashi-koen, Fukuoka 812, Japan] *Pagrus major.*

90-001038 Hoenig, J. M. ESTIMATION OF GROWTH AND MORTALITY PARAMETERS FOR USE IN LENGTH-STRUCTURED STOCK PRODUCTION MODELS. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 121-128. 1987. FR 35(1)
[RSMAS/CIMAS, Univ. Miami, 4600 Rickenbacker Causeway, Miami, FL 33149]

90-001039 Hoenig, J. M.; J. Csirke; M. J. Sanders; A. Abella; M. G. Andreoli; D. Levi; S. Ragonese; M. Al-Shoushani and M. M. El-Musa. DATA ACQUISITION FOR LENGTH-BASED STOCK ASSESSMENT: REPORT OF WORKING GROUP I. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 343-352. 1987. FR 35(1)
[RSMAS/CIMAS, Univ. Miami, 4600 Rickenbacker Causeway, Miami, FL 33149]

90-001040 Jones, R. AN INVESTIGATION OF LENGTH COMPOSITION ANALYSIS USING SIMULATED LENGTH COMPOSITIONS. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 217-238. 1987. FR 35(1)
[Mar. Lab., Dep. Agric. & Fish. Scotland, P.O. Box 101, Aberdeen ABG 8DB, Scotland]

90-001041 Lapointe, Michael F.; Randall M. Peterman and Alec D. MacCall. TRENDS IN FISHING MORTALITY RATE ALONG WITH ERRORS IN NATURAL MORTALITY RATE CAN CAUSE SPURIOUS TIME TRENDS IN FISH STOCK ABUNDANCES ESTIMATED BY VIRTUAL POPULATION ANALYSIS (VPA). *Can. J. Fish. Aquat. Sci.* 46(12):2129-2139. 1989. In English with French summ. FR 35(1)
[Peterman: Nat. Resour. Manage. Program, Simon Fraser Univ., Burnaby, BC, Canada V5A 1S6]

90-001042 Laurec, A. and B. Mesnil. ANALYTICAL INVESTIGATIONS OF ERRORS IN MORTALITY RATES ESTIMATED FROM LENGTH DISTRIBUTIONS OF CATCHES. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 239-281. 1987. FR 35(1)
[Cent. IFREMER Nantes, B.P. 1049, 44037 Nantes Cedex, France]

90-001043 Leschine, Thomas M. POLICY ANALYSIS AND THE INCORPORATION OF BIOLOGICAL OBJECTIVES INTO FISHERY MANAGEMENT DECISIONS. *Lect. Notes Coastal Estuarine Stud.* 28:141-164. 1988. FR 35(1)
[Univ. Wash., Inst. Mar. Sci., Mail Stop HF-05, Seattle 98195]

90-001044 Levi, D.; M. G. Andreoli and L. Cannizzaro. USE OF ELEFAN I FOR SAMPLING DESIGN. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 311-319. 1987. FR 35(1)
[Ist. Tecnol., Pesca & Pescato (ITPP), Mazara del Vallo, Italy] *Sardina pilchardus.*

90-001045 Liu, Q.; T. Pitcher and M. Al-Hossaini. AGEING WITH FISHERIES LENGTH-FREQUENCY DATA, USING INFORMATION ABOUT GROWTH. *J. Fish Biol.* 35(Suppl. A):169-177. 1989. FR 35(1)
[Dep. Fish., Quingdao Univ. Oceanogr., Quingdao, China]

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

90-001046 Majkowski, J.; J. Hampton; R. Jones; A. Laurec and A. A. Rosenberg. SENSITIVITY OF LENGTH BASED METHODS FOR STOCK ASSESSMENT: REPORT OF WORKING GROUP III. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 363-372. 1987. FR 35(1)
[Div. Fish. Res., Mar. Lab., CSIRO, GPO Box 1538, Hobart, Tasm. 7001, Australia]

90-001047 Mangel, Marc. FROM EGG SURVEYS TO ECOSYSTEM MODELS: BIOLOGICAL ASSUMPTIONS IN FISHERIES MANAGEMENT. *Lect. Notes Coastal Estuarine Stud.* 28:75-103. 1988. FR 35(1)
[Univ. Calif., Dep. Math., Davis 95616]

90-001048 Mathews, C. P. FISHERIES MANAGEMENT IN A DEVELOPING COUNTRY: THE MOST APPROPRIATE BALANCE OF SIZE- AND AGE-RELATED METHODS FOR PRACTICAL ASSESSMENTS. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 321-334. 1987. FR 35(1)
[Mariculr. & Fish. Dep., Kuwait Inst. Sci. Res., P.O. Box 24885, Safat, Kuwait]

90-001049 Matsumiya, Yoshiharu and Shyuhei Ohnishi. EFFECTIVE RELEASING PROGRAM OF ARTIFICIAL FINGERLINGS USING A SIMULATION MODEL. *Nippon Suisan Gakkaishi* 55(10):1759-1765. 1989. In English. FR 35(1)
[Ocean Res. Inst., Univ. Tokyo, Tokyo 164, Japan] *Pagrus major* in Japan.

90-001050 Mayo, Ralph K.; Jacqueline M. McGlade and Stephen H. Clark. PATTERNS OF EXPLOITATION AND BIOLOGICAL STATUS OF POLLOCK (*POLLACHIUS VIRENS* L.) IN THE SCOTIAN SHELF, GEORGES BANK, AND GULF OF MAINE AREA. *J. Northwest Atl. Fish. Sci.* 9(1):13-36. 1989. FR 35(1)
[NMFS, Northeast Fish. Cent., Woods Hole Lab., MA 02543]

90-001051 McCaughran, Donald A. and Richard B. Deriso. EFFECT OF BIOLOGICAL ASSUMPTIONS ON HALIBUT PRODUCTION ESTIMATES. *Lect. Notes Coastal Estuarine Stud.* 28:5-28. 1988. FR 35(1)
[Int. Pac. Halibut Comm., Univ. Wash., Mail Stop WB-20, Seattle 98195] *Hippoglossus stenolepis.*

90-001052 Megrey, Bernard A. and Vidar G. Wespestad. A REVIEW OF BIOLOGICAL ASSUMPTIONS UNDERLYING FISHERY ASSESSMENT MODELS. *Lect. Notes Coastal Estuarine Stud.* 28:31-69. 1988. FR 35(1)
[NOAA, Northwest & Alaska Fish. Cent., 7600 Sand Point Way N.E., Bin C15700, Seattle, WA 98115]

90-001053 Mendelssohn, Roy and Philippe Cury. TEMPORAL AND SPATIAL DYNAMICS OF A COASTAL PELAGIC SPECIES, *SARDINELLA MADERENSIS* OFF THE IVORY COAST. *Can. J. Fish. Aquat. Sci.* 46(10):1686-1697. 1989. In English with French summ. FR 35(1)
[Pac. Fish. Environ. Group, Southwest Fish. Cent., NMFS, NOAA, P.O. Box 831, Monterey, CA 93942]

90-001054 Milhous, Robert T.; Marlys A. Updike and Diane M. Schneider. PHYSICAL HABITAT SIMULATION SYSTEM REFERENCE MANUAL - VERSION II. INSTREAM FLOW INFORMATION PAPER NO. 26. *U.S. Fish Wildl. Serv. Biol. Rep.* 89(16):variously paged. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

90-001054 CONTINUED
[U.S. Fish & Wildl. Serv., Natl. Ecol. Res. Cent., 4512 McMurray Ave., Fort Collins, CO 80525-3400]

90-001055 Morgan, G. R. and D. Pauly. ANALYSIS OF LENGTH-FREQUENCY DATA: SOME AVAILABLE PROGRAMS AND USER'S INSTRUCTIONS. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 373-462. 1987. FR 35(1)
[c/o Western Australia Mar. Res. Lab., P.O. Box 20, North Beach, W.A. 6020, Australia]

90-001056 Morgan, G. R. INCORPORATING AGE DATA INTO LENGTH-BASED STOCK ASSESSMENT METHODS. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 137-146. 1987. FR 35(1)
[c/o Western Australia Mar. Res. Lab., P.O. Box 20, North Beach, W.A. 6020, Australia: *Lutjanus coccineus*.

90-001057 Mullen, Ashley J. AGGREGATION OF FISH THROUGH VARIABLE DIFFUSIVITY. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 87(2):353-362. 1989. FR 35(1)
[Inter-Am. Trop. Tuna Comm., c/o Scripps Inst. Oceanogr., La Jolla, CA 92093] *Thunnus albacares*.

90-001058 Noakes, D. J. A NONPARAMETRIC APPROACH TO GENERATING INSEASON FORECASTS OF SALMON RETURNS. *Can. J. Fish. Aquat. Sci.* 46(12):2046-2055. 1989. In English with French summ. FR 35(1)
[Dep. Fish. & Oceans, Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6] *Oncorhynchus nerka* in Canada.

90-001059 Noel, James R. and Roy C. Sidle. A PROGRAM TO CALCULATE CHANNEL SCOUR AND FILL. *Water Resour. Bull.* 25(4):733-741. 1989. FR 35(1)
[Pac. Northwest Res. Stn., U.S. For. Serv., P.O. Box 20909, Juneau, AK 99802]

90-001060 Pak, Sergey B. MATHEMATICAL MODEL OF DYNAMICS OF SPAWNING SIZE-STRUCTURED POPULATION (WITH AN APPLICATION). *Fish. Res. (Amst.)* 8(2):141-158. 1989. FR 35(1)
[Pac. Res. Inst. Fish. & Oceanogr. (TINRO), 4, Tupik Shevchenko, 690600 Vladivostok, USSR]

90-001061 Panayotou, Theodore and Donna Panayotou. OCCUPATIONAL AND GEOGRAPHICAL MOBILITY IN AND OUT OF THAI FISHERIES. *FAO Fish. Tech. Pap.* No. 271. 77p. 1986. FR 35(1)
[Inst. Int. Dev., Harvard Univ., Cambridge, MA 02138]

90-001062 Pauly, D. A REVIEW OF THE ELEFAN SYSTEM FOR ANALYSIS OF LENGTH-FREQUENCY DATA IN FISH AND AQUATIC INVERTEBRATES. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 7-34. 1987. FR 35(1)
[ICLARM, MC P.O. Box 1501, Makati, Metro Manila, Philippines]

90-001063 Pauly, D. and G. R. Morgan, editors. LENGTH-BASED METHODS IN FISHERIES RESEARCH. PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON THE THEORY AND APPLICATION OF LENGTH-BASED METHODS FOR STOCK ASSESSMENT, 11-16

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

90-001063 CONTINUED FEBRUARY 1985, MAZZARA DEL VALLO, SICILY, ITALY. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. 468p. 1987. FR 35(1)
[ICLARM, MC P.O. Box 1501, Makati, Metro Manila, Philippines] Selected papers indexed in this issue of *Fisheries Review*.

90-001064 Pikitch, Ellen K. OBJECTIVES FOR BIOLOGICALLY AND TECHNICALLY INTERRELATED FISHERIES. *Lect. Notes Coastal Estuarine Stud.* 28:107-136. 1988. FR 35(1)
[Fish. Res. Inst., School Fish., Mail Stop WH-10, Univ. Wash., Seattle 98195]

90-001065 Pope, J. G. and Yang Jiming. PHALANX ANALYSIS: AN EXTENSION OF JONES' LENGTH COHORT ANALYSIS TO MULTISPECIES COHORT ANALYSIS. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 177-191. 1987. FR 35(1)
[MAFF, Fish. Lab., Lowestoft, Suffolk NR33 0HT, England]

90-001066 Pope, J. G. TWO METHODS FOR SIMULTANEOUSLY ESTIMATING GROWTH, MORTALITY AND COHORT SIZE PARAMETERS FROM TIME SERIES OF CATCH-AT-LENGTH DATA FROM RESEARCH VESSEL SURVEYS. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 103-111. 1987. FR 35(1)
[MAFF, Fish. Lab., Lowestoft, Suffolk, NR33 0HT, England] *Gadus morhua* in the North Sea.

90-001067 Rosenberg, A. A. and J. R. Beddington. MONTE-CARLO TESTING OF TWO METHODS FOR ESTIMATING GROWTH FROM LENGTH-FREQUENCY DATA WITH GENERAL CONDITIONS FOR THEIR APPLICABILITY. *ICLARM (Int. Cent. Living Aquat. Resout. Manage.) Conf. Proc.* No. 13. p. 283-298. 1987. FR 35(1)
[Mar. Resour. Assess. Group, Cent. Environ. Technol., Imperial Coll. Sci. & Technol., 48 Prince's Gardens, London SW7 1LU, England]

90-001068 Rosenberg, A. A. and J. G. Pope. COMMENTS ON AGE-LENGTH VS. LENGTH-AGE RELATIONSHIPS. *ICLARM (Int. Cent. Living Aquat Resour. Manage.) Conf. Proc.* No. 13. p. 305-309. 1987. FR 35(1)
[Mar. Resour. Assess. Group, Cent. Environ. Technol., Imperial Coll. Sci. & Technol., 48 Prince's Gardens, London SW7 1LU, England]

90-001069 Saenger, R. Alfred. BIVARIATE NORMAL SWIMBLADDER SIZE ALLOMETRY MODELS AND ALLOMETRIC EXPONENTS FOR 38 MESOPELAGIC SWIMBLADDERED FISH SPECIES COMMONLY FOUND IN THE NORTH SARGASSO SEA. *Can. J. Fish. Aquat. Sci.* 46(11):1986-2002. 1989. In English with French summ. FR 35(1)
[Surface Ship Sonar Dep., Naval Underwater Syst. Cent., New London Lab., New London, CT 06320]

90-001070 Sanders, M. J. ESTIMATING MORTALITIES FROM LENGTH- OR AGE-SPECIFIC SEX RATIOS. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 129-136. 1987. FR 35(1)
[Fish. Dep., FAO, Via delle Terme di Caracalla, 00100 Rome, Italy]

90-001071 Sanders, M. J. A SIMPLE METHOD FOR ESTIMATING THE VON BERTALANFFY GROWTH CONSTANTS FOR DETERMINING LENGTH FROM AGE AND AGE FROM LENGTH. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 299-303. 1987. FR 35(1)
[Fish. Dep., FAO, Via delle Terme di Caracalla, 00100 Rome, Italy]

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

90-001072 Savabi, M. R. and G. F. Gifford. EFFECTS OF SIMULATED CANOPY COVER AND ANIMAL DISTURBANCES ON RILL AND INTERRILL EROSION. *Water Resour. Bull.* 25(4):783-788. 1989. FR 35(1)
[Agron. Dep., Univ. Md., U.S. Dep. Agric.-ARS Hydrol. Lab., Beltsville 20705]

90-001073 Scarnecchia, D. L.; A. Isaksson and S. E. White. NEW AND REVISED CATCH FORECASTS FOR TWO-SEA-WINTER ATLANTIC SALMON *(SALMO SALAR)* IN ICELANDIC RIVERS. *J. Appl. Ichthyol.* 5(3):101-110. 1989. In English with German and French summ. FR 35(1)
[Dep. Anim. Ecol., Iowa State Univ., Ames 50011]

90-001074 Shepherd, J. G. TOWARDS A METHOD FOR SHORT-TERM FORECASTING OF CATCH RATES BASED ON LENGTH COMPOSITIONS. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 167-176. 1987. FR 35(1)
[MAFF, Fish. Lab., Lowestoft, Suffolk NR33 0HT, England]

90-001075 Shepherd, J. G.; G. R. Morgan; J. A. Gulland and C. P. Mathews. METHODS OF ANALYSIS AND ASSESSMENT: REPORT OF WORKING GROUP II. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 353-362. 1987. FR 35(1)
[MAFF, Fish. Lab., Lowestoft, Suffolk NR33 0HT, England]

90-001076 Shepherd, J. G. A WEAKLY PARAMETRIC METHOD FOR ESTIMATING GROWTH PARAMETERS FROM LENGTH COMPOSITION DATA. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 113-119. 1987. FR 35(1)
[MAFF, Fish. Lab., Lowestoft, Suffolk NR33 0HT, England]

90-001077 Shirakihara, Kunio; Takeshi Hidaka and Shinichi Nagahama. AN APPROACH TO THE ONE STOCK-MULTIPLE FISHERIES PROBLEM ON THE RED SEA BREAM MANAGEMENT IN THE CHIKUZENKAI. *Nippon Suisan Gakkaishi* 55(8):1319-1324. 1989. In English with Japanese summ. FR 35(1)
[Fac. Fish., Nagasaki Univ., Bunkyomachi, Nagasaki 852, Japan] *Pagrus major.*

90-001078 Snyder, W. M.; A. W. Thomas and A. L. Dillard. FLOW PERSISTENCE AS A MODIFIER OF SEASONAL RUNOFF PATTERNS. *Water Resour. Bull.* 25(4):809-820. 1989. FR 35(1)
[275 Gatewood Circle, Athens, GA 30607]

90-001079 Sparre, P. A METHOD FOR THE ESTIMATION OF GROWTH, MORTALITY AND GEAR SELECTION/RECRUITMENT PARAMETERS FROM LENGTH-FREQUENCY SAMPLES WEIGHTED BY CATCH PER EFFORT. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 75-102. 1987. FR 35(1)
[Danish Inst. Fish. & Mar. Res., Charlottenlund Slot, 2920 Charlottenlund, Denmark]

90-001080 Stauffer, Gary. COMMENTS ON THE EFFECT OF BIOLOGICAL ASSUMPTIONS ON HALIBUT PRODUCTION ESTIMATES. *Lect. Notes Coastal Estuarine Stud.* 28:29-30. 1988. FR 35(1)
[NOAA, Northwest & Alaska Fish. Cent., 7600 Sand Point Way N.E., Bin C15700, Seattle, WA 98115] *Hippoglossus stenolepis.*

90-001081 Stergiou, K. I. MODELLING AND FORECASTING THE FISHERY FOR PILCHARD *(SARDINA PILCHARDUS)* IN GREEK WATERS USING ARIMA TIME-SERIES MODELS. *J. Cons. Cons. Int. Explor. Mer* 46(1):16-23. 1989. FR 35(1)
[Natl. Cent. Mar. Res., Agios Kosmas, Hellenikon, 16604 Athens, Greece]

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

90-001082 Sukhanov, V. V. MODEL OF THE FEEDING OF GENERALIZED PREDATORS. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):124-136. 1988. FR 35(1)
[Pac. Inst. Geogr., Far East Branch, Acad. Sci. USSR, Vladivostok, USSR]

90-001083 Swartzman, Gordon L. COMMENTS ON BIOLOGICAL ASSUMPTIONS UNDERLYING FISHERY ASSESSMENT MODELS. *Lect. Notes Coastal Estuarine Stud.* 28:69-74. 1988. FR 35(1)
[Univ. Wash., School Fish., Cent. Quantitative Sci. Fish., Mail Stop HR-20, Seattle 98195]

90-001084 Taylor, Charles H. and Jim C. Loftis. TESTING FOR TREND IN LAKE AND GROUND WATER QUALITY TIME SERIES. *Water Resour. Bull.* 25(4):715-726. 1989. FR 35(1)
[Dep. Stat., Agric. & Chem. Eng., Colo. State Univ., Fort Collins 80523]

90-001085 ter Braak, Cajo J. F. CANOCO - AN EXTENSION OF DECORANA TO ANALYZE SPECIES-ENVIRONMENT RELATIONSHIPS. *Hydrobiologia* 184(3):169-170. 1989. FR 35(1)
[Agric. Math. Group, Box 100, 6700 AC Wageningen, Netherlands]

90-001086 Thompson, Keith R. and Fred H. Page. DETECTING SYNCHRONY OF RECRUITMENT USING SHORT, AUTOCORRELATED TIME SERIES. *Can. J. Fish. Aquat. Sci.* 46(10):1831-1838. 1989. In English with French summ. FR 35(1)
[Dep. Oceanogr., Dalhousie Univ., Halifax, NS, Canada B3H 4J1] *Gadus morhua* and *Melanogrammus aeglefinus*.

90-001087 Thorpe, J. E. DEVELOPMENTAL VARIATION IN SALMONID POPULATIONS. *J. Fish Biol.* 35(Suppl. A):295-303. 1989. FR 35(1)
[Freshwater Fish. Lab., Pitlochry, Perthshire PH16 5LB, England] *Salmo salar*.

90-001088 Walters, Carl J. VALUE OF SHORT-TERM FORECASTS OF RECRUITMENT VARIATION FOR HARVEST MANAGEMENT. *Can. J. Fish. Aquat. Sci.* 46(11):1969-1976. 1989. In English with French summ. FR 35(1)
[Resour. Ecol., Univ. British Columbia, Vancouver, BC, Canada V6T 1W5]

90-001089 Wetherall, J. A.; J. J. Polovina and S. Ralston. ESTIMATING GROWTH AND MORTALITY IN STEADY-STATE FISH STOCKS FROM LENGTH-FREQUENCY DATA. *ICLARM (Int. Cent. Living Aquat. Resour. Manage.) Conf. Proc.* No. 13. p. 53-74. 1987. FR 35(1)
[Southwest Fish. Cent., Honolulu Lab., NMFS, NOAA, 2570 Dole St., Honolulu, HI 96822-2396]

90-001090 Wilimovsky, Norman J. COMMENTS ON MULTISPECIES FISHERIES MANAGEMENT: THE COST OF UNDERSTANDING. *Lect. Notes Coastal Estuarine Stud.* 28:136-139. 1988. FR 35(1)
[Univ. British Columbia, Resour. Ecol., Vancouver, BC, Canada V6T 1W5]

90-001091 Wood, Chris C. UTILITY OF SIMILARITY DENDROGRAMS IN STOCK COMPOSITION ANALYSIS. *Can. J. Fish. Aquat. Sci.* 46(12):2121-2128. 1989. In English with French summ. FR 35(1)
[Dep. Fish. & Oceans, Biol. Sci. Branch, Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6]

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

90-001092 Wu, Kai and Ming-ko Woo. ESTIMATING ANNUAL FLOOD PROBABILITIES USING FOURIER SERIES METHOD. *Water Resour. Bull.* 25(4):743-750. 1989. FR 35(1)
[Inst. Geogr., Acad. Sci., Beijing, China]

LAKE MANAGEMENT AND RESEARCH

90-001093 Ahmadi, M. R. and Gh. Wossughi. [THE IMPORTANCE OF FISHERIES IN LAKE HAMUN, IRAN.] *Osterreichs Fischerei* 41(10):209-216. 1988. In German with English summ. FR 35(1)
[Inst. Fischkunde & Fischkrankheiten, Tierarztliche Fak., Univ. Teheran, Postfach 14155, 6453 Teheran, Iran]

90-001094 Alamu, S. O. THE SOCIO-ECONOMIC STUDY OF FISHING TECHNOLOGY IN JEBBA LAKE BASIN. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 251-261. 1989. FR 35(1)

90-001095 Alberts, James J.; John W. Bowling; James E. Schindler and Dennis E. Kyle. SEASONAL DYNAMICS OF PHYSICAL AND CHEMICAL PROPERTIES OF A WARM MONOMICTIC RESERVOIR. *Verh. Int. Ver. Limnol.* 23(1):176-180. 1988. FR 35(1)
[Univ. Ga., Mar. Inst., Sapelo 31327]

90-001096 Alexander, V.; S. C. Whalen and K. M. Klingensmith. NITROGEN CYCLING IN ARCTIC LAKES AND PONDS. *Verh. Int. Ver. Limnol.* 23(1):213. 1988. Abstract only. FR 35(1)
[Inst. Mar. Sci., Univ. Alaska, Fairbanks 99775-1080]

90-001097 Allison, William R. and Harold H. Harvey. COMPOSITION, DISTRIBUTION AND STANDING CROP OF THE BENTHOS IN A SHALLOW LAKE. *Verh. Int. Ver. Limnol.* 23(1):241-245. 1988. FR 35(1)
[Dep. Zool., Univ. Toronto, Toronto, ON, Canada M5S 1A1]

90-001098 Ambe, Yoshinari; Seiji Horiuchi and Takayoshi Kawai. VARIATION OF WATER BALANCE OF LAKE MASHU - A CLOSED VOLCANIC LAKE IN JAPAN. *Verh. Int. Ver. Limnol.* 23(1):90-95. 1988. FR 35(1)
[Natl. Inst. Environ. Studies, Yatabe-machi, Tsukuba, Ibaraki 305, Japan]

90-001099 Antonietti, R.; I. Ferrari; G. Rossetti; L. Tarozzi and P. Viaroli. ZOOPLANKTON STRUCTURE IN AN OLIGOTROPHIC MOUNTAIN LAKE IN NORTHERN ITALY. *Verh. Int. Ver. Limnol.* 23(1):545-552. 1988. FR 35(1)
[Ist. Ecol., Univ. Parma, Via P. Groppi 18A, I-43100 Parma, Italy]

90-001100 Ashley, Kenneth Ian. HYPOLIMNETIC AERATION RESEARCH IN BRITISH COLUMBIA. *Verh. Int. Ver. Limnol.* 23(1):215-219. 1988. FR 35(1)
[Minist. Environ. & Parks, 2204 Main Mall, Univ. British Columbia, Vancouver, BC, Canada V6T 1W5]

90-001101 Baker, Lawrence A.; Janice E. Tacconi and Patrick L. Brezonik. ROLE OF SEDIMENTATION IN REGULATING MAJOR ION COMPOSITION IN A SOFTWATER, SEEPAGE LAKE IN NORTHERN WISCONSIN. *Verh. Int. Ver. Limnol.* 23(1):346-350. 1988. FR 35(1)
[Dep. Civil & Mineral Eng., Univ. Minn., Minneapolis 55455]

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

90-001102 Balirwa, John S. and F. W. B. Bugenyi. AN ATTEMPT TO RELATE ENVIRONMENTAL FACTORS TO FISH ECOLOGY IN THE LOTIC HABITATS OF LAKE VICTORIA. *Verh. Int. Ver. Limnol.* 23(3):1756-1761. 1988. FR 35(1)
[UFFRO, P.O. Box 343, Jinja, Uganda] *Barbus* sp. in Africa.

90-001103 Balvay, Gerard and Jean Pierre Pelletier. [LONG-TERM CHANGES IN PLANKTON ABUNDANCE DURING THE PERIOD OF ACCELERATED EUTROPHICATION IN LAKE GENEVA.] *Verh. Int. Ver. Limnol.* 23(1):474-481. 1988. In French with English summ. FR 35(1)
[Inst. Limnol., Stn. Hydrobiol., INRA, 75 Ave. Corzent, B.P. 11 F, F-74203 Thonon les Bains, France]

90-001104 Berntell, Anders; Lennart Henriksson; Hans Nyman; Hans Oskarsson and Axel Wenblad. CRITERIA FOR THE BIOLOGICAL EVALUATION OF LAKES FROM A NATURE CONSERVATION VIEWPOINT. *Verh. Int. Ver. Limnol.* 23(3):1500-1504. 1988. FR 35(1)
[Regional Admin., S-551 86 Jonkoping, Sweden]

90-001105 Bhargava, S. C. ECOLOGY OF INDIAN INLAND SALINE LAKES. II. PRIMARY PRODUCTION IN DIDWANA LAKE. *Verh. Int. Ver. Limnol.* 23(4):2217-2220. 1988. FR 35(1)
[Dep. Zool., Univ. Jodhpur, Jodhpur-342 003, India]

90-001106 Bonacina, C.; G. Bonomi; L. Barbanti; R. Mosello and D. Ruggiu. RECOVERY OF AN INDUSTRIALLY ACIDIFIED, AMMONIUM AND HEAVY METALS POLLUTED LAKE (LAKE ORTA, N. ITALY), DUE TO THE ADOPTION OF TREATMENT PLANTS. *Verh. Int. Ver. Limnol.* 23(1):535-544. 1988. FR 35(1)
[Balaton Limnol. Res. Inst., Hungary Acad. Sci., Tihany, Hungary]

90-001107 Campbell, C. E. and R. Knoechel. ZOOPLANKTON COMMUNITIES AND TROPHIC STRUCTURE OF LAKES ON THE AVALON PENINSULA, NEWFOUNDLAND, CANADA. *Verh. Int. Ver. Limnol.* 23(1):297-305. 1988. FR 35(1)
[Dep. Biol., Memorial Univ. Newfoundland, St. John's, NF, Canada A1B 3X9]

90-001108 Caraco, N. F.; J. J. Cole; G. E. Likens; M. D. Mattson and S. Nolan. A VERY INBALANCED NUTRIENT BUDGET FOR MIRROR LAKE, NEW HAMPSHIRE, U.S.A. *Verh. Int. Ver. Limnol.* 23(1):170-175. 1988. FR 35(1)
[Inst. Ecosyst. Studies, Bot. Garden, Box AB, Millbrook, NY 12545]

90-001109 Carney, Heath J. and Charles R. Goldman. SEASONAL PHYTOPLANKTON *r*- AND *K*-SELECTION IN OLIGOTROPHIC LAKE TAHOE. *Verh. Int. Ver. Limnol.* 23(2):672-676. 1988. FR 35(1)
[Inst. Ecol. & Div. Environ. Studies, Univ. Calif., Davis 95616]

90-001110 Chen Weimin. SOME ASPECTS OF ZOOPLANKTON SPECIES, BIOMASS AND DISTRIBUTION TO ENVIRONMENTAL FACTORS IN DIANCHI AND ERHAI LAKES WITH AN EVALUATION OF WATER TROPHIC STATUS. *Verh. Int. Ver. Limnol.* 23(1):566. 1988. Abstract only. FR 35(1)
[Nanjing Inst. Geogr., Nanjing, China]

90-001111 Chorus, Ingrid and Elisabeth Wesseler. RESPONSE OF THE PHYTOPLANKTON COMMUNITY TO THERAPY MEASURES IN A HIGHLY EUTROPHIC URBAN LAKE (SCHLACHTENSEE, BERLIN). *Verh. Int. Ver. Limnol.* 23(2):719-728. 1988. FR 35(1)
[Deidesheimer Str. 24, D-1000 Berlin 33, West Germany]

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

90-001112 Clayton, J. S. and C. C. Tanner. SELECTIVE CONTROL OF SUBMERGED AQUATIC PLANTS TO ENHANCE RECREATIONAL USES OF WATER BODIES. *Verh. Int. Ver. Limnol.* 23(3):1518-1521. 1988. FR 35(1)
[Minist. Agric. & Fish., Ruakura Agric. Cent., Private Bag, Hamilton, New Zealand]

90-001113 Coffey, Brian T. AQUATIC MACROPHYTE MANAGEMENT IN NEW ZEALAND. *Verh. Int. Ver. Limnol.* 23(1):42-47. 1988. FR 35(1)
[Ruakura Soil & Plant Res. Stn., MAF, Private Bag, Hamilton, New Zealand]

90-001114 Cook, M. P. and M. J. Burgis. THE DIET AND GROWTH OF JUVENILE FISH IN A GRAVEL PIT LAKE. *Verh. Int. Ver. Limnol.* 23(3):1719-1723. 1988. FR 35(1)
[Dep. Biol. Sci., London Polytechnic, Old Castle St., London E1 7NT, England] *Rutilus rutilus, Perca fluviatilis, Tinca tinca, Cyprinus carpio, Abramis brama,* and *Scardinius erythrophthalmus* in England.

90-001115 Coulter, G. W. SEASONAL HYDRODYNAMIC CYCLES IN LAKE TANGANYIKA. *Verh. Int. Ver. Limnol.* 23(1):86-89. 1988. FR 35(1)
[Dep. Ichthyol., Rhodes Univ., Grahamstown, South Africa]

90-001116 Cullen, Peter; Neale Farmer and Emmett O'Loughlin. ESTIMATING NONPOINT SOURCES OF PHOSPHORUS TO LAKES. *Verh. Int. Ver. Limnol.* 23(1):588-593. 1988. FR 35(1)
[Water Res. Cent., Canberra Coll. Adv. Educ., P.O. Box 1, Belconnen, A.C.T. 2616, Australia]

90-001117 Cyrus, D. P. TURBIDITY AND OTHER PHYSICAL FACTORS IN NATAL ESTUARINE SYSTEMS. PART 2: ESTUARINE LAKES. *J. Limnol. Soc. South. Afr.* 14(2):72-81. 1988. FR 35(1)
[Dep. Zool., Univ. Zululand, Private Bag X1001, KwaDlangezwa 3886, Natal, South Africa]

90-001118 Daddy, F.; M. Wari and A. Mohammed. NATURAL RESOURCES EVALUATION OF TATABU FLOODPLAIN AND THE RESTORATION OF LAKE TATABU (NDAKOLOWU), NIGER STATE, NIGERIA. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 50-60. 1989. FR 35(1)

90-001119 Davis, Sally F. SALMONID FISHERIES MANAGEMENT IN NEW ZEALAND WATERS. *Verh. Int. Ver. Limnol.* 23(1):48-57. 1988. FR 35(1)
[Freshwater Fish. Cent., MAF, P.O. Box 8324, Christchurch, New Zealand]

90-001120 de Bernardi, R.; G. Giussani; M. Manca and D. Ruggiu. LONG-TERM DYNAMICS OF PLANKTON COMMUNITIES IN LAGO MAGGIORE (N. ITALY). *Verh. Int. Ver. Limnol.* 23(2):729-733. 1988. FR 35(1)
[CNR, Ist. Italiano Idrobiol., I-28048 Pallanza, Italy]

90-001121 Dillon, P. J.; K. H. Nicholls; B. A. Locke; E. de Grosbois and N. D. Yan. PHOSPHORUS - PHYTOPLANKTON RELATIONSHIPS IN NUTRIENT-POOR SOFT-WATER LAKES IN CANADA. *Verh. Int. Ver. Limnol.* 23(1):258-264. 1988. FR 35(1)
[Dep. Zool., Univ. Toronto, Toronto, ON, Canada M5S 1A1]

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

90-001122 Duarte, Carlos M.; David F. Bird and Jacob Kalff. SUBMERGED MACROPHYTES AND SEDIMENT BACTERIA IN THE LITTORAL ZONE OF LAKE MEMPHREMAGOG (CANADA). *Verh. Int. Ver. Limnol.* 23(1):271-281. 1988. FR 35(1)
[Dep. Biol., McGill Univ., 1205 Ave. Dr. Penfield, Montreal, PQ, Canada H3A 1B1]

90-001123 Edmondson, W. T. THE PRESENT STATUS OF ZOOPLANKTON IN LAKE WASHINGTON. *Verh. Int. Ver. Limnol.* 23(1):306. 1988. Abstract only. FR 35(1)
[Dep. Zool., NJ-15, Univ. Wash., Seattle 98195]

90-001124 Eilers, J. M.; D. F. Brakke; D. H. Landers and P. E. Kellar. CHARACTERISTICS OF LAKES IN MOUNTAINOUS AREAS OF THE WESTERN UNITED STATES. *Verh. Int. Ver. Limnol.* 23(1):144-151. 1988. FR 35(1)
[Northrop Serv., Inc., U.S. Environ. Protection Agency, 200 S.W. 35th St., Corvallis, OR 97333]

90-001125 Ellis, Bonnie K. and Jack A. Stanford. NUTRIENT SUBSIDY IN MONTANE LAKES: FLUVIAL SEDIMENTS VERSUS VOLCANIC ASH. *Verh. Int. Ver. Limnol.* 23(1):327-340. 1988. FR 35(1)
[Flathead Lake Biol. Stn., Univ. Mont., Polson 59860]

90-001126 Eloranta, P. PERIPHYTIC DIATOMS AS INDICATORS OF LAKE ACIDITY. *Verh. Int. Ver. Limnol.* 23(1):470-473. 1988. FR 35(1)
[Dep. Biol., Univ. Jyvaskyla, Yliopistonkatu 9, SF-40100 Jyvaskyla, Finland]

90-001127 Fisher, Thomas R.; Robert D. Doyle and Emily R. Peele. SIZE-FRACTIONATED UPTAKE AND REGENERATION OF AMMONIUM AND PHOSPHATE IN A TROPICAL LAKE. *Verh. Int. Ver. Limnol.* 23(2):637-641. 1988. FR 35(1)
[Horn Point Lab., Univ. Md., CEES, Cambridge 21613]

90-001128 Folt, Carol L.; William G. Crumpton and Charles R. Goldman. THE CONSEQUENCES OF FOOD RESOURCE PARTITIONING ON A SIZE-STRUCTURED ZOOPLANKTON POPULATION. *Verh. Int. Ver. Limnol.* 23(1):315-326. 1988. FR 35(1)
[Dep. Biol. Sci., Dartmouth Coll., Hanover, NH]

90-001129 Fremling, C. R. EFFECTS OF RECLAMATION ON AN URBAN WINTER-KILL LAKE AT WINONA, MINNESOTA, U.S.A. *Verh. Int. Ver. Limnol.* 23(1):341-345. 1988. FR 35(1)
[Dep. Biol., Winona State Univ., Winona, MN 55987]

90-001130 Fukushima, Takehiko and Kohji Muraoka. SIMPLE MODEL TO PREDICT WATER QUALITY IN 90 JAPANESE LAKES. *Verh. Int. Ver. Limnol.* 23(2):812-827. 1988. FR 35(1)
[Natl. Inst. Environ. Studies, Tsukuba-Science City, Ibaraki 305, Japan]

90-001131 Gaggino, G. F. and A. Provini. EUTROPHICATION OF LAKES AND RESERVOIRS IN ITALY. *Verh. Int. Ver. Limnol.* 23(1):553-557. 1988. FR 35(1)
[Water Res. Inst., CNR, I-20047 Brugherio, Italy]

90-001132 Gawler, Meg; Gerard Balvay; Paul Blanc; Jean-Claude Druart and Jean Pierre Pelletier. PLANKTON ECOLOGY OF LAKE GENEVA: A TEST OF PEG-MODEL. *Verh. Int. Ver. Limnol.* 23(2):699. 1988. Abstract only. FR 35(1)
[Inst. Limnol., F-74203 Thonon-les-Bains, France]

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

90-001133 Gophen, M.; B. Azoulay and M. N. Bruton. SELECTIVE PREDATION OF LAKE KINNERET ZOOPLANKTON BY FINGERLINGS OF *CLARIAS GARIEPINUS*. *Verh. Int. Ver. Limnol.* 23(3):1763-1765. 1988. FR 35(1)
[Yigal Allon Kinneret Limnol. Lab., P.O. Box 345, Tiberias 14102, Israel]

90-001134 Hall, Donald J. and Timothy J. Ehlinger. PERTURBATION, PLANKTIVORY, AND PELAGIC COMMUNITY STRUCTURE: THE CONSEQUENCE OF WINTERKILL IN A SMALL LAKE. *Can. J. Fish. Aquat. Sci.* 46(12):2203-2209. 1989. In English with French summ. FR 35(1)
[W.K. Kellogg Biol. Stn. & Dep. Zool., Mich. State Univ., Hickory Corners 49060] *Micropterus salmoides* and *Notemigonus crysoleucas* in Michigan.

90-001135 Hamilton, J. D. RECENT HUMAN INFLUENCES ON THE ECOLOGY OF LOCH LOMOND, SCOTLAND. *Verh. Int. Ver. Limnol.* 23(1):403-413. 1988. FR 35(1)
[Biol. Dep., Paisley Coll. Technol., High St., Paisley PA1 2BE, Scotland]

90-001136 Hamm, A.; H. Remeth and N. Schilling. ECOSYSTEM MODEL FOR A LAKE WITH HIGH THROUGHFLOW. *Verh. Int. Ver. Limnol.* 23(2):796-800. 1988. FR 35(1)
[Bayerische Landesanstalt, Demollstr. 31, D-8121 Wielenbach, West Germany]

90-001137 Hammer, U. T. WATER RESOURCES AND THEIR UTILIZATION IN SASKATCHEWAN, CANADA. *Verh. Int. Ver. Limnol.* 23(1):228-233. 1988. FR 35(1)
[Dep. Biol., Univ. Saskatchewan, Saskatoon, SN, Canada S7N 0W0]

90-001138 Herdendorf, Charles E. and Laura A. Fay. DEVELOPMENT OF AN ENVIRONMENTAL SENSITIVITY INDEX FOR COASTAL AREAS OF LAKE ERIE, NORTH AMERICA. *Verh. Int. Ver. Limnol.* 23(1):380-385. 1988. FR 35(1)
[Ohio State Univ., 484 W. 12th Ave., Columbus 43210]

90-001139 Herodek, Sandor; Vera Istvanovics and Janos Zlinszky. PHOSPHORUS METABOLISM AND EUTROPHICATION CONTROL OF LAKE BALATON. *Verh. Int. Ver. Limnol.* 23(1):517-521. 1988. FR 35(1)
[Balaton Limnol. Res. Inst., Hungary Acad. Sci., Tihany, Hungary]

90-001140 Holopainen, I. J.; W. M. Tonn; C. A. Paszkowski and A. K. Pitkanen. HABITAT USE, DIEL ACTIVITY, AND GROWTH OF CRUCIAN CARP IN A MANIPULATED POND. *Verh. Int. Ver. Limnol.* 23(3):1743-1750. 1988. FR 35(1)
[Dep. Biol., Univ. Joensuu, P.O. Box 111, SF-80101 Joensuu 10, Finland] *Carassius carassius, Perca fluviatilis,* and *Esox lucius* in Finland.

90-001141 Horns, William H. and Jana L. Waite. FISHERIES RESEARCH PROGRAMS ON LAKE MICHIGAN. *Ill. Nat. Hist. Surv. Rep.* No. 291. p. 2-3. 1989. FR 35(1)

90-001142 Horsfall, Louise; Ann Jelinek and Brian V. Timms. THE INFLUENCE OF RECREATION, MAINLY POWER BOATING, ON THE ECOLOGY OF THE THIRLMERE LAKES, N.S.W., AUSTRALIA. *Verh. Int. Ver. Limnol.* 23(1):580-587. 1988. FR 35(1)
[School Environ. Studies, Macquarie Univ., North Ryde, N.S.W. 2113, Australia]

90-001143 Ilmavirta, Veijo. ACIDIC LAKE LAKEENJARVI, EASTERN FINLAND: PHYTOPLANKTON SUCCESSION AND WATER CHEMISTRY. *Verh. Int. Ver. Limnol.* 23(2):693-698. 1988. FR 35(1)
[P. Hesperiankatu 3A4, SF-00260 Helsinki, Finland]

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

90-001144 Inouchi, Y. and S. Terashima. SEDIMENTATION MECHANISM OF FINE MATERIALS IN LAKE BIWA. *Verh. Int. Ver. Limnol.* 23(1):567-572. 1988. FR 35(1)
[Dep. Mar. Geol., Geol. Surv. Japan, Higashi 1-1-3, Yatabe Tsukuba, Ibaraki 305, Japan]

90-001145 Jensen, Lars Moller and Steen Schwaerter. MAJOR PATHWAYS INVOLVED IN THE UTILIZATION OF PRIMARY PRODUCTION IN A TEMPERATE EUTROPHIC LAKE. *Verh. Int. Ver. Limnol.* 23(1):445-450. 1988. FR 35(1)
[15 Agern Alle, DK-2970 Horsholm, Denmark]

90-001146 Jespersen, A.-M.; K. Christoffersen and B. Riemann. ANNUAL CARBON FLUXES BETWEEN PHYTO-, ZOO-, AND BACTERIO-PLANKTON IN EUTROPHIC, LAKE FREDERIKSBORG SLOTSSO, DENMARK. *Verh. Int. Ver. Limnol.* 23(1):440-444. 1988. FR 35(1)
[Freshwater Biol. Lab., Univ. Copenhagen, Helsingorsgade 51, DK-3400 Hillerod, Denmark]

90-001147 Jonasson, Petur M. and Claus Lindegaard. ECOSYSTEM STUDIES OF NORTH ATLANTIC RIDGE LAKES. *Verh. Int. Ver. Limnol.* 23(1):394-402. 1988. FR 35(1)
[Freshwater Biol. Lab., Univ. Copenhagen, Helsingorsgade 51, DK-3400 Hillerod, Denmark]

90-001148 Jones, John R. and Mark S. Kaiser. LIMNOLOGICAL CHARACTERISTICS OF LAKE OF THE OZARKS, MISSOURI. II: MEASUREMENTS FOLLOWING FORMATION OF A LARGE RESERVOIR UPSTREAM. *Verh. Int. Ver. Limnol.* 23(2):976-984. 1988. FR 35(1)
[School For. Fish. & Wildl., Univ. Mo., Columbia 65211]

90-001149 Kasprzak, Peter; Rainer Koschel; Ulrich Steiner and Karl Metzdorf. "ENCLOSURE" EXPERIMENTS IN FOOD-WEB MANIPULATION: FIRST STEP - DIVIDING THE EXPERIMENTAL LAKE. *Limnologica* 19(2):161-165. 1988. FR 35(1)
[Akad. Wissenschaften DDR, Zentralinst. Mikrobiol. & Exp. Therapie, Abt. Limnol., Beutenbergstr. 11, DDR-6900 Jena, East Germany]

90-001150 Kilham, Susan Soltau. PHYTOPLANKTON RESPONSES TO CHANGES IN MORTALITY RATE. *Verh. Int. Ver. Limnol.* 23(2):677-682. 1988. FR 35(1)
[Dep. Biol., Univ. Mich., Ann Arbor 48109-1048]

90-001151 Kitchell, James F. and Stephen R. Carpenter. FOOD WEB MANIPULATION IN EXPERIMENTAL LAKES. *Verh. Int. Ver. Limnol.* 23(1):351-358. 1988. FR 35(1)
[Cent. Limnol., Univ. Wis., Madison 53106]

90-001152 Knoechel, R. and C. E. Campbell. PHYSICAL, CHEMICAL, WATERSHED AND PLANKTON CHARACTERISTICS OF LAKES ON THE AVALON PENINSULA, NEWFOUNDLAND, CANADA: A MULTIVARIATE ANALYSIS OF INTERRELATIONSHIPS. *Verh. Int. Ver. Limnol.* 23(1):282-296. 1988. FR 35(1)
[Dep. Biol., Memorial Univ. Newfoundland, St. John's, NF, Canada A1B 3X9]

90-001153 Krambeck, Hans-Jurgen. PARTIAL DESTRATIFICATION OF EUTROPHIC LAKES: A TOOL FOR "ECOSYSTEM MODELLING." *Verh. Int. Ver. Limnol.* 23(2):801-806. 1988. FR 35(1)
[Max-Planck-Inst. Limnol., Postfach 165, D-2320 Plon, West Germany]

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

90-001154 Lampert, Winfried. THE RELATIVE IMPORTANCE OF FOOD LIMITATION AND PREDATION IN THE SEASONAL CYCLE OF TWO *DAPHNIA* SPECIES. *Verh. Int. Ver. Limnol.* 23(2):713-718. 1988. FR 35(1)
[Limnol. Inst., Univ. Konstanz, Mainaustr. 212, D-7750 Konstanz, West Germany]

90-001155 Landers, Dixon H.; Joseph M. Eilers; David F. Brakke and Penelope E. Kellar. CHARACTERISTICS OF ACIDIC LAKES IN THE EASTERN UNITED STATES. *Verh. Int. Ver. Limnol.* 23(1):152-162. 1988. FR 35(1)
[Northrop Serv., Inc., U.S. Environ. Protection Agency, 200 S.W. 35th St., Corvallis, OR 97333]

90-001156 Langeland, Arnfinn. DECREASED ZOOPLANKTON DENSITY IN A MOUNTAIN LAKE RESULTING FROM PREDATION BY RECENTLY INTRODUCED *MYSIS RELICTA*. *Verh. Int. Ver. Limnol.* 23(1):419-429. 1988. FR 35(1)
[Dir. Nat. Manage., Tungasletta 2, N-7000 Trondheim, Norway]

90-001157 Lehman, John T. RAISING THE LEVEL OF A SUBARCTIC LAKE. *In: Ecological Knowledge and Environmental Problem-Solving: Concepts and Case Studies. National Research Council.* p. 317-330. 1986. FR 35(1)
[Div. Biol. Sci., Univ. Mich., Ann Arbor]

90-001158 Lehman, John T. CONTROL OF EUTROPHICATION IN LAKE WASHINGTON. *In: Ecological Knowledge and Environmental Problem-Solving: Concepts and Case Studies. National Research Council.* p. 301-316. 1986. FR 35(1)
[Div. Biol. Sci., Univ. Mich., Ann Arbor]

90-001159 Lohman, Kirk; John R. Jones; Matthew F. Knowlton; D. B. Swar; M. Anne Pamperl and Blaise J. Brazos. PRE- AND POSTMONSOON LIMNOLOGICAL CHARACTERISTICS OF LAKES IN THE POKHARA AND KATHMANDU VALLEYS, NEPAL. *Verh. Int. Ver. Limnol.* 23(1):558-565. 1988. FR 35(1)
[School For. Fish. & Wildl., Univ. Mo., Columbia 65211]

90-001160 MacIntyre, Sally and John M. Melack. FREQUENCY AND DEPTH OF VERTICAL MIXING IN AN AMAZON FLOODPLAIN LAKE (L. CALADO, BRAZIL). *Verh. Int. Ver. Limnol.* 23(1):80-85. 1988. FR 35(1)
[Dep. Biol. Sci., Mar. Sci. Inst., Univ. Calif., Santa Barbara 93106]

90-001161 Malthus, T. J. and S. F. Mitchell. AGRICULTURAL DEVELOPMENT AND EUTROPHICATION OF LAKE MAHINERANGI, NEW ZEALAND. *Verh. Int. Ver. Limnol.* 23(2):1028-1031. 1988. FR 35(1)
[Dep. Zool., Univ. Otago, P.O. Box 56, Dunedin, New Zealand]

90-001162 Mazumder, Asit. IMPACT OF FERTILIZATION AND PLANKTIVOROUS FISH ON COMMUNITY STRUCTURE AND DYNAMICS IN LAKE ENCLOSURES. *Ph.D. dissertation, Univ. Waterloo (Canada)* 1989. From Diss. Abstr. Int. B Sci. Eng. 50(6):2266-2267. 1989. FR 35(1)

90-001163 Mazumder, Asit; W. D. Taylor; D. J. McQueen and D. R. S. Lean. EFFECTS OF FERTILIZATION AND PLANKTIVOROUS FISH ON EPILIMNETIC PHOSPHORUS AND PHOSPHORUS SEDIMENTATION IN LARGE ENCLOSURES. *Can. J. Fish. Aquat. Sci.* 46(10):1735-1742. 1989. In English with French summ. FR 35(1)
[Dep. Biol., Univ. Waterloo, Waterloo, ON, Canada N2L 3G1]

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

90-001164 McDonald, Michael E. and Anne E. Hershey. SIZE STRUCTURE OF A LAKE TROUT (*SALVELINUS NAMAYCUSH*) POPULATION IN AN ARCTIC LAKE: INFLUENCE OF ANGLING AND IMPLICATIONS FOR FISH COMMUNITY STRUCTURE. *Can. J. Fish. Aquat. Sci.* 46(12):2153-2156. 1989. In English with French summ. FR 35(1)
[Dep. Chem. Processing Eng., Univ. Minn., Duluth 55812] *Thymallus arcticus* and *Prosopium cylindraceum* in Alaska.

90-001165 Mesaki, S. THE FISHERIES OF LAKE TANGANYIKA. *J. Minn. Acad. Sci.* 54(3):18. 1989. Abstract only. FR 35(1)
[Dep. Anthropol., Univ. Minn., Minneapolis 55108]

90-001166 Minns, Charles K. FACTORS AFFECTING FISH SPECIES RICHNESS IN ONTARIO LAKES. *Trans. Am. Fish. Soc.* 118(5):533-545. 1989. FR 35(1)
[Great Lakes Lab. Fish. & Aquat. Sci., Bayfield Inst., 867 Lakeshore Rd., P.O. Box 5050, Burlington, ON, Canada L7R 4A6] Data for 52 species.

90-001167 Moeller, Robert E. and Robert G. Wetzel. LITTORAL VS PROFUNDAL COMPONENTS OF SEDIMENT ACCUMULATION: CONTRASTING ROLES AS PHOSPHORUS SINKS. *Verh. Int. Ver. Limnol.* 23(1):386-393. 1988. FR 35(1)
[Acad. Nat. Sci., 19th St. & Parkway, Philadelphia, PA 19103]

90-001168 Moss, Brian; Ken Irvine and Julia Stansfield. APPROACHES TO THE RESTORATION OF SHALLOW EUTROPHICATED LAKES IN ENGLAND. *Verh. Int. Ver. Limnol.* 23(1):414-418. 1988. FR 35(1)
[School Environ. Sci., Univ. East Anglia, Norwich, England]

90-001169 Munawar, M.; I. F. Munawar and L. H. McCarthy. SEASONAL SUCCESSION OF PHYTOPLANKTON SIZE ASSEMBLAGES AND ITS ECOLOGICAL IMPLICATIONS IN THE NORTH AMERICAN GREAT LAKES. *Verh. Int. Ver. Limnol.* 23(2):659-671. 1988. FR 35(1)
[Great Lakes Fish. Res. Branch, Cent. Inland Waters, Burlington, ON, Canada L7R 4A6]

90-001170 Nagoshi, Makoto. SURVIVAL OF BROODS UNDER PARENTAL CARE AND PARENTAL ROLES OF THE CICHLID FISH, *LAMPROLOGUS TOAE*, IN LAKE TANGANYIKA. *Verh. Int. Ver. Limnol.* 23(3):1762. 1988. Abstract only. FR 35(1)
[Fac. Sci., Nara Women's Univ., Nara 630, Japan]

90-001171 Nauwerck, Arnold. [VARIABILITY OF FISH STOCKS IN THE MONDSEE SINCE 1955. CAUSES-EFFECTS-CONSEQUENCES.] *Osterreichs Fischerei* 42(11/12):276-285. 1989. In German. FR 35(1)
[Limnol. Inst. Osterreichs Akad. Wissenschaften, A-5310 Mondsee, Gaisberg, Austria]

90-001172 Nyberg, Per. RECLAMATION OF ACIDIFIED ARCTIC CHAR (*SALVELINUS ALPINUS* (L.)) LAKES IN SWEDEN BY MEANS OF LIMING. *Verh. Int. Ver. Limnol.* 23(3):1737-1742. 1988. FR 35(1)
[Inst. Freshwater Res., S-170 11 Drottningholm, Sweden]

90-001173 Okaeme, A. N.; G. Stopford; M. Haliru and M. Wari. SURVEY OF AQUATIC BIRDS AND THEIR CONTRIBUTION TO LAKE KAINJI FISHERIES: I. AQUATIC BIRD FAUNA OF LAKE KAINJI. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 28-36. 1989. FR 35(1)

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

90-001174 Ouellet, M. and H. G. Jones. SOME PHYSICO-CHEMICAL ASPECTS OF LAKE SAINT-JEAN, QUEBEC, CANADA. *Verh. Int. Ver. Limnol.* 23(2):961-967. 1988. FR 35(1)
[INRS-EAU, Univ. Quebec, 2700 Einstein, Ste.-Foy, PQ, Canada G1V 4C7]

90-001175 Palsson, O. K.; E. Jonsson; S. A. Schopka; G. Stefansson and B. AE. Steinarsson. ICELANDIC GROUNDFISH SURVEY DATA USED TO IMPROVE PRECISION IN STOCK ASSESSMENTS. *J. Northwest Atl. Fish. Sci.* 9(1):53-72. 1989. FR 35(1)
[Mar. Res. Inst., Skulagata 4, P.O. Box 1390, 121 - Reykjavik, Iceland]

90-001176 Payne, G. W.; E. White; S. E. Pickmere and P. H. Woods. ALGAL RESPONSES TO NITROGEN AND PHOSPHORUS ADDITIONS IN FOUR CENTRAL NORTH ISLAND, NEW ZEALAND LAKEWATERS. *Verh. Int. Ver. Limnol.* 23(1):602-606. 1988. FR 35(1)
[Taupo Res. Lab., DSIR, P.O. Box 415, Taupo, New Zealand]

90-001177 Power, Elizabeth A. ENCLOSURE EXPERIMENTS TO TEST EFFECTS OF LOG STORAGE ON A LARGE SALMONID PRODUCING LAKE: WATER QUALITY AND ZOOPLANKTON DENSITY. *Verh. Int. Ver. Limnol.* 23(3):1578-1585. 1988. FR 35(1)
[Dep. Resour. Ecol., Univ. British Columbia, Vancouver, BC, Canada V6T 1W5] *Oncorhynchus nerka* in Canada.

90-001178 Prepas, E. E. and A. M. Trimbee. IMPACT OF NITROGEN AND PHOSPHORUS ADDITIONS ON PHYTOPLANKTON AND ZOOPLANKTON IN DEEP PRAIRIE LAKES. *Verh. Int. Ver. Limnol.* 23(1):227. 1988. Abstract only. FR 35(1)
[Dep. Zool., Univ. Alberta, Edmonton, AB, Canada T6G 2E9]

90-001179 Quiros, Rolando. RELATIONSHIPS BETWEEN AIR TEMPERATURE, DEPTH, NUTRIENTS AND CHLOROPHYLL IN 103 ARGENTINIAN LAKES. *Verh. Int. Ver. Limnol.* 23(2):647-658. 1988. FR 35(1)
[Inst. Nac. Invest. Desarrollo Pesq., Dep. Aguas Cont., C.C. 175, Playa Grande, 7600 Mar del Plata, Argentina]

90-001180 Ragotzkie, Robert A. GREAT LAKES ECOSYSTEM EXPERIMENT. *Verh. Int. Ver. Limnol.* 23(1):359-365. 1988. FR 35(1)
[Sea Grant Inst., Univ. Wis., Madison 53705]

90-001181 Raji, Aminu. STUDIES ON A FRESHWATER FISHERY OF A CITY LAKE. *Ph.D. dissertation, Univ. Coll. Cardiff (Wales)* 445p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1768. 1989. Order No. BRDX86102. FR 35(1)
Rutilus rutilus in Wales.

90-001182 Ranta, Esa and Kai Lindstrom. PREDICTION OF LAKE-SPECIFIC FISH YIELD. *Fish. Res. (Amst.)* 8(2):113-128. 1989. FR 35(1)
[Integrative Ecol. Unit, Dep. Zool., Univ. Helsinki, P. Rautatiekatu 13, SF-00100 Helsinki, Finland]

90-001183 Reuter, John E. and Richard P. Axler. A COMPARISON OF METHODOLOGIES USED TO MEASURE NUTRIENT UPTAKE BY PERIPHYTON. *Verh. Int. Ver. Limnol.* 23(2):915-918. 1988. FR 35(1)
[Inst. Ecol., Univ. Calif., Davis 95616]

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

90-001184 Reynolds, Colin S. THE CONCEPT OF ECOLOGICAL SUCCESSION APPLIED TO SEASONAL PERIODICITY OF FRESHWATER PHYTOPLANKTON. *Verh. Int. Ver. Limnol.* 23(2):683-691. 1988. FR 35(1)
[Freshwater Biol. Assoc., Ferry House, Ambleside, Cumbria LA22 0LP, England]

90-001185 Richerson, Peter J. and Heath J. Carney. PATTERNS OF TEMPORAL VARIATION IN LAKE TITICACA, A HIGH ALTITUDE TROPICAL LAKE. II. SUCCESSION RATE AND DIVERSITY OF THE PHYTOPLANKTON. *Verh. Int. Ver. Limnol.* 23(2):734-738. 1988. FR 35(1)
[Inst. Ecol., Univ. Calif., Davis 95616]

90-001186 Roijackers, R. M. M. and P. J. T. Verstraelen. ECOLOGICAL INVESTIGATIONS IN THREE SHALLOW LAKES OF DIFFERENT TROPHIC LEVEL IN THE NETHERLANDS. *Verh. Int. Ver. Limnol.* 23(1):489-495. 1988. FR 35(1)
[Lab. Hydrobiol., Agric. Univ., De Dreijen 12, NL-6703 BC Wageningen, Netherlands]

90-001187 Rutherford, J. C. INTERNAL NITROGEN AND PHOSPHORUS LOADS IN LAKE ROTORUA, NEW ZEALAND. *Verh. Int. Ver. Limnol.* 23(2):828-831. 1988. FR 35(1)
[Water Quality Cent., Minist. Works Dev., Private Bag, Hamilton, New Zealand]

90-001188 Sager, Paul E.; Barbara Rubio and Jeff Kirk. THE IMPORTANCE OF NANNOPLANKTON ALONG THE TROPHIC GRADIENT IN GREEN BAY, LAKE MICHIGAN. *Verh. Int. Ver. Limnol.* 23(1):376-379. 1988. FR 35(1)
[Environ. Sci., Univ. Wis., Green Bay 54301-7001]

90-001189 Schelske, Claire L.; Daniel J. Conley and Eugene F. Stoermer. HAS SILICA INCREASED IN LAKE SUPERIOR WATERS? *Verh. Int. Ver. Limnol.* 23(1):163-169. 1988. FR 35(1)
[Dep. Fish. & Aquacult., 7922 NW 71st St., Univ. Fla., Gainesville 32606]

90-001190 Schilling, Norbert; Evelyn Kostler and Manuela Schowalter. DYNAMICS OF NATURAL ALGAL POPULATIONS IN LAKE KOCHEL (FRG). *Verh. Int. Ver. Limnol.* 23(1):505-509. 1988. FR 35(1)
[Bayerische Landesanstalt, Demollstr. 31, D-8121 Wielenbach, West Germany]

90-001191 Schindler, D. W. EXPERIMENTAL STUDIES OF CHEMICAL STRESSORS ON WHOLE LAKE ECOSYSTEMS. *Verh. Int. Ver. Limnol.* 23(1):11-41. 1988. FR 35(1)
[Dep. Fish & Oceans, Freshwater Inst., 501 University Crescent, Winnipeg, MB, Canada R3T 2N6]

90-001192 Seip, Knut L. and Harald Ibrekk. REGRESSION EQUATIONS FOR LAKE MANAGEMENT - HOW FAR DO THEY GO? *Verh. Int. Ver. Limnol.* 23(2):778-785. 1988. FR 35(1)
[Cent. Ind. Res., Forskningsvn. 1, Oslo 3, Norway]

90-001193 Sossau, Christian and Roland Pechlaner. THE REGAINED, BUT HIDDEN HOLOMIXIS OF THE AUSTRIAN LAKE TRAUNSEE. *Verh. Int. Ver. Limnol.* 23(1):74-79. 1988. FR 35(1)

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

90-001193 CONTINUED
[Abt. Limnol., Inst. Zool., Univ. Innsbruck, Technikerstr. 25, A-6020 Innsbruck, Austria]

90-001194 Sprules, W. Gary. EFFECTS OF TROPHIC INTERACTIONS ON THE SHAPE OF PELAGIC SIZE SPECTRA. *Verh. Int. Ver. Limnol.* 23(1):234-240. 1988. FR 35(1)
[Dep. Zool., Univ. Toronto, Erindale Coll., Mississauga, ON, Canada L5L 1L6]

90-001195 Stabel, H.-H. ALGAL CONTROL OF ELEMENTAL SEDIMENTARY FLUXES IN LAKE CONSTANCE. *Verh. Int. Ver. Limnol.* 23(2):700-706. 1988. FR 35(1)
[Limnol. Inst., Univ. Konstanz, Mainaustr. 212, D-7750 Konstanz, West Germany]

90-001196 Stockner, J. G. and K. S. Shortreed. ALGAL PICOPLANKTON PRODUCTION AND CONTRIBUTION TO FOOD-WEBS IN OLIGOTROPHIC BRITISH COLUMBIA LAKES. *Verh. Int. Ver. Limnol.* 23(1):214. 1988. Abstract only. FR 35(1)
[Dep. Fish. & Oceans, Fish. Res. Branch, West Vancouver Lab., 4160 Marine Dr., West Vancouver, BC, Canada]

90-001197 Stout, V. M. A COMPARISON OF NORTH ISLAND AND SOUTH ISLAND LAKES IN NEW ZEALAND. *Verh. Int. Ver. Limnol.* 23(1):620-623. 1988. FR 35(1)
[Dep. Zool., Univ. Canterbury, Christchurch, New Zealand]

90-001198 Symoens, J. J.; M. De Clercq; R. A. Osafo and U. Sansen. THE LAKE OF VIRELLES (PROV. HAINAUT, BELGIUM): MANAGEMENT OF A LAKE FOR NATURE CONSERVATION AND RECREATION. *Verh. Int. Ver. Limnol.* 23(2):1057-1062. 1988. FR 35(1)
[Lab. Algemene Plantkd. Natuurbeheer, Vrije Univ. Brussels, Pleinlaan 2, B-1050 Brussels, Belgium]

90-001199 Tjomsland, Torulv and Bjorn A. Faafeng. APPLICATION OF THE ECOLOGICAL MODEL FINNECO TO LAKE GJERSJOEN. *Verh. Int. Ver. Limnol.* 23(2):786-789. 1988. FR 35(1)
[Inst. Water Res., P.O. Box 33, Blindern 0314, Oslo 3, Norway]

90-001200 Trimbee, A. M. and E. E. Prepas. THE EFFECT OF OXYGEN DEPLETION ON THE TIMING AND MAGNITUDE OF BLUE-GREEN ALGAL BLOOMS. *Verh. Int. Ver. Limnol.* 23(1):220-226. 1988. FR 35(1)
[Dep. Zool., Univ. Alberta, Edmonton, AB, Canada T6G 2E9]

90-001201 Turk, John T. USE OF REGIONAL LAKE-SULFATE CONCENTRATIONS IN THE EVALUATION OF WATERSHED PROCESSES IN HIGH-ELEVATION PARTS OF THE WESTERN UNITED STATES. *Verh. Int. Ver. Limnol.* 23(1):138-143. 1988. FR 35(1)

90-001202 Vant, W. N. and R. J. Davies-Colley. WATER APPEARANCE AND RECREATIONAL USE OF 10 LAKES OF THE NORTH ISLAND (NEW ZEALAND). *Verh. Int. Ver. Limnol.* 23(1):611-615. 1988. FR 35(1)

90-001203 Wagner, Benno. [REPORT OF THE AUSTRIAN LAKE CONSTANCE FISHERY IN 1987.] *Osterreichs Fischerei* 41(10):217-223. 1988. In German. FR 35(1)
[Vorarlberger Umweltschutzanstalt, Bregenz, Austria]

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

90-001204 Welch, E. B.; C. L. DeGasperi and D. E. Spyridakis. SOURCES FOR INTERNAL P LOADING IN A SHALLOW LAKE. *Verh. Int. Ver. Limnol.* 23(1):307-314. 1988. FR 35(1)
[Dep. Civil Eng., Univ. Wash., Seattle 98502]

90-001205 Whillans, Thomas H. and Fikret Berkes. USE AND ABUSE, CONFLICT AND HARMONY: THE GREAT LAKES FISHERY IN TRANSITION. *Alternatives* 13(3):10-18. 1986. In English with French summ. FR 35(1)

90-001206 White, E.; G. Payne; S. Pickmere and P. Woods. PHOSPHORUS REDUCTION REQUIRED TO CONTROL EUTROPHICATION AT LAKE ROTORUA, NEW ZEALAND. *Verh. Int. Ver. Limnol.* 23(1):607-610. 1988. FR 35(1)
[Taupo Res. Lab., DSIR, P.O. Box 415, Taupo, New Zealand]

90-001207 White, E.; G. Payne and S. Pickmere. A LIMITATION TO THE USEFULNESS OF CHLOROPHYLL AS A BIOMASS INDICATOR IN EUTROPHICATION STUDIES. *Verh. Int. Ver. Limnol.* 23(1):598-601. 1988. FR 35(1)
[Taupo Res. Lab., DSIR, P.O. Box 415, Taupo, New Zealand]

90-001208 Whiteside, M. C. 0+ FISH AS MAJOR FACTORS AFFECTING ABUNDANCE PATTERNS OF LITTORAL ZOOPLANKTON. *Verh. Int. Ver. Limnol.* 23(3):1710-1714. 1988. FR 35(1)
[Dep. Biol., Univ. Minn., Duluth 55812]

90-001209 Willen, Eva. ABUNDANCE DISTRIBUTION MODELS TESTED ON PHYTOPLANKTON IN SWEDISH LAKES. *Verh. Int. Ver. Limnol.* 23(2):692. 1988. Abstract only. FR 35(1)
[Natl. Environ. Protection Board, Environ. Quality Lab., Box 8005, S-750 08 Uppsala, Sweden]

90-001210 Yoshioka, Takahito; Eitaro Wada and Yatsuka Saijo. ANALYSIS OF LACUSTRINE FOOD WEB WITH NATURAL CARBON AND NITROGEN ISOTOPE RATIOS. *Verh. Int. Ver. Limnol.* 23(1):573-578. 1988. FR 35(1)
[Lab. Biogeochem., Minamiooya 11, Machida, Tokyo 194, Japan]

RIVER AND STREAM MANAGEMENT AND RESEARCH

90-001211 Aizaki, Morihiro and Kazunori Sakamoto. RELATIONSHIP BETWEEN WATER QUALITY AND PERIPHYTON BIOMASS IN SEVERAL STREAMS IN JAPAN. *Verh. Int. Ver. Limnol.* 23(3):1511-1517. 1988. FR 35(1)
[Natl. Inst. Environ. Studies, Onogaw, Tsukuba, Ibaraki 305, Japan]

90-001212 Alabaster, John S. and Graham A. Reid. FACTORS AFFECTING ANGLING CATCHES OF BROWN TROUT IN THE RIVER DON, ABERDEENSHIRE. *Verh. Int. Ver. Limnol.* 23(3):1715-1718. 1988. FR 35(1)
[1 Granby Rd., Stevenage SG1 4AR, Scotland] *Salmo trutta* in Scotland.

90-001213 Almestrand, A. and A. Almestrand. RONNEA. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 553-576. 1984. FR 35(1)
[Dep. Plant Physiol., Univ. Lund, P.O. Box 7007, S-220 67 Lund, Sweden]

90-001214 Amann, Erwin. [INVESTIGATIONS OF TWO HIGH-MOUNTAIN LAKES STOCKED WITH BROOK TROUT (*SALVELINUS FONTINALIS* M.) IN MONTAFON VALLEY (VORARLBERG).] *Osterreichs Fischerei* 42(4):96-103. 1989. In German with

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

90-001214 CONTINUED English summ. FR 35(1)
[Landstr. 10, A-6824 Schlins, Austria]

90-001215 Anderson, Bertin W. and Robert D. Ohmart. RIPARIAN REVEGETATION AS A MITIGATING PROCESS IN STREAM AND RIVER RESTORATION. *In: The Restoration of Rivers and Streams: Theories and Experience. James A. Gore, editor.* p. 41-79. 1986. FR 35(1)
[Cent. Environ. Studies, Ariz. State Univ., Tempe 85287]

90-001216 Asbridge, Gary Milburn. THE EFFECT OF DISCHARGE ON TYPE AND PHYSICAL CHARACTERISTICS OF HABITAT IN THE BOISE RIVER, IDAHO AND AN EVALUATION OF THE SUITABILITY OF HABITAT IN THE BOISE RIVER FOR SALMONIDS. *M.S. thesis, Univ. Idaho* 70p. 1988. FR 35(1)

90-001217 Bachmann, Roger W.; Kenneth J. Kortge and Thomas E. Robertson. PRIMARY PRODUCTION IN A SMALL AGRICULTURAL STREAM. *Verh. Int. Ver. Limnol.* 23(2):1179-1182. 1988. FR 35(1)
[Dep. Anim. Ecol., Iowa State Univ., Ames 50011]

90-001218 Bain, Mark B. and Jeffrey M. Boltz. REGULATED STREAMFLOW AND WARMWATER STREAM FISH: A GENERAL HYPOTHESIS AND RESEARCH AGENDA. *U.S. Fish Wildl. Serv. Biol. Rep.* 89(18):28p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[U.S. Fish & Wildl. Serv., Coop. Fish & Wildl. Res. Unit, Dep. Fish. & Allied Aquacult., Auburn Univ., Auburn, AL 36849]

90-001219 Beasley, Barry R.; David A. Lange; Kathryn T. Newland and Wallace C. Brittain. SOUTH CAROLINA RIVERS ASSESSMENT. *S.C. Water Resour. Comm. Rep.* No. 164. 249p. 1988. FR 35(1)
[Water Resour. Comm., 1201 Main St., Suite 1100, Columbia, SC 29201]

90-001220 Benke, Arthur C. and Judy L. Meyer. STRUCTURE AND FUNCTION OF A BLACKWATER RIVER IN THE SOUTHEASTERN U.S.A. *Verh. Int. Ver. Limnol.* 23(2):1209-1218. 1988. FR 35(1)
[Aquat. Biol. Program, Dep. Biol., Univ. Ala., Tuscaloosa 35487]

90-001221 Berrie, A. D. and J. F. Wright. THE WINTERBOURNE STREAM. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 179-206. 1984. FR 35(1)
[Freshwater Biol. Assoc. River Lab., East Stoke, Wareham, Dorset BH20 6BB, England]

90-001222 Biggs, Barry J. ALGAL PROLIFERATIONS IN NEW ZEALAND'S SHALLOW STONY FOOTHILLS-FED RIVERS: TOWARD A PREDICTIVE MODEL. *Verh. Int. Ver. Limnol.* 23(3):1405-1411. 1988. FR 35(1)
[Hydrol. Cent., Minist. Works & Dev., P.O. Box 1479, Christchurch, New Zealand]

90-001223 Boothroyd, I. K. G. TEMPORAL AND DIEL EMERGENCE OF CHIRONOMIDAE (DIPTERA: INSECTA) FROM A NEW ZEALAND STREAM. *Verh. Int. Ver. Limnol.* 23(3):1399-1404. 1988. FR 35(1)
[Dep. Biol. Sci., Univ. Waikato, Private Bag, Hamilton, New Zealand]

90-001224 Bothar, A. RESULTS OF LONG-TERM ZOOPLANKTON INVESTIGATIONS IN THE RIVER DANUBE, HUNGARY. *Verh. Int. Ver. Limnol.* 23(3):1340-1343. 1988. FR 35(1)
[Danube Res. Stn., Hungarian Acad. Sci., H-2131 God, Hungary]

90-001225 Brittain, John E. and Svein Jakob Saltveit. THE EFFECT OF CHANGED TEMPERATURE REGIME ON THE BENTHOS OF A NORWEGIAN REGULATED RIVER. *Verh. Int. Ver. Limnol.* 23(3):1278. 1988. Abstract only. FR 35(1)
[Zool. Mus., Univ. Oslo, Sarsgaten 1, N-0562 Oslo 5, Norway] *Salmo salar* and *S. trutta.*

90-001226 Brooks, R. J.; P. S. Nielsen and S. J. Saltveit. EFFECT OF STREAM REGULATION ON POPULATION PARAMETERS OF ATLANTIC SALMON (*SALMO SALAR* L.) IN THE RIVER LAERDALSELVA, WESTERN NORWAY. *Regul. Rivers Res. Manage.* 4(4):347-354. 1989. FR 35(1)
[Saltveit: Freshwater Ecol. & Inland Fish. Lab., Univ. Oslo, Sarsgt. 1, N-0562 Oslo 5, Norway]

90-001227 Bunn, Stuart E. ASPECTS OF THE FUNCTIONAL ORGANIZATION OF STREAMS OF THE NORTHERN JARRAH FOREST, WESTERN AUSTRALIA. *Verh. Int. Ver. Limnol.* 23(3):1388. 1988. Abstract only. FR 35(1)
[School Australian Environ. Studies, Griffith Univ., Nathan, Qld. 4111, Australia]

90-001228 Burgess, Stephen A. SOME EFFECTS OF STREAM HABITAT IMPROVEMENT ON THE AQUATIC AND RIPARIAN COMMUNITY OF A SMALL MOUNTAIN STREAM. *In: The Restoration of Rivers and Streams: Theories and Experience. James A. Gore, editor.* p. 223-246. 1986. FR 35(1)
[Environ. & Right-of-Way Branch, Natl. Energy Board, 473 Albert St., Ottawa, ON, Canada K1A 0E5] *Esox lucius, Salvelinus fontinalis, S. namaycush,* and *Stizostedion vitreum* in Canada.

90-001229 Burton, Thomas M.; Karl E. Ulrich and Sheridan K. Haack. COMMUNITY DYNAMICS OF BACTERIA, ALGAE, AND INSECTS IN A FIRST ORDER STREAM IN NEW HAMPSHIRE, U.S.A. *Verh. Int. Ver. Limnol.* 23(2):1125-1134. 1988. FR 35(1)
[Dep. Zool., Fish. & Wildl., Mich. State Univ., East Lansing 48824]

90-001230 Cadwallader, P. L. FLOW REGULATION IN THE MURRAY RIVER SYSTEM AND ITS EFFECT ON THE NATIVE FISH FAUNA. *In: Stream Protection - The Management of Rivers for Instream Uses. Ian C. Campbell, editor.* p. 115-133. 1986. FR 35(1)
[Dep. Conserv., For. & Lands, Fish. & Wildl. Serv., Snobs Creek Freshwater Fish. Res. Stn. & Hatchery, Private Bag 20, Alexandra, Vic. 3714, Australia]

90-001231 Campbell, Ian C. PROTECTING STREAMS - A COMPLEX PROBLEM. *In: Stream Protection - The Management of Rivers for Instream Uses. Ian C. Campbell, editor.* p. 235-249. 1986. FR 35(1)

90-001232 Campbell, Ian C., editor. STREAM PROTECTION - THE MANAGEMENT OF RIVERS FOR INSTREAM USES. *Water Studies Cent. Chisholm Inst. Technol.* 249p. 1986. FR 35(1)
Selected chapters indexed in this issue of *Fisheries Review.*

90-001233 Chiaudani, G. and R. Marchetti. PO. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 401-436. 1984. FR 35(1)
[Dip. Biol., Univ. Degli Studi Milano, Via Celoria 26, 20133 Milan, Italy]

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

90-001234 Clark, William H. WILD TROUT POPULATIONS IMPROVE IN ROCK CREEK. *J. Idaho Acad. Sci.* 24(1/2):2. 1988. Abstract only. FR 35(1)
[Dep. Health & Welfare, Div. Environ. Quality, 450 W. State St., Boise, ID 83720] *Oncorhynchus* spp. in Idaho.

90-001235 Decamps, H.; J. Capblancq and J. N. Tourenq. LOT. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 207-235. 1984. FR 35(1)
[Cent. Ecol. Resour. Renouvelables, 29 Jeanne-Marvig, 31055 Toulouse Cedex, France]

90-001236 Descy, J.-P. and A. Empain. MEUSE. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 1-23. 1984. FR 35(1)
[Dep. Bot., Univ. Liege, Sart Tilman, B-4000 Liege, Belgium]

90-001237 Descy, J.-P.; E. Everbecq and J. S. Smitz. PRIMARY PRODUCTION IN THE RIVER MEUSE (BELGIUM). *Verh. Int. Ver. Limnol.* 23(3):1287-1293. 1988. FR 35(1)
[Dep. Biol., FNDP, Rue de Bruxelles 61, B-5000 Namur, Belgium]

90-001238 Doberski, J. and I. D. S. Brodie. A STUDY OF POPULATION CHANGES, PRODUCTION AND SURVIVORSHIP OF RIVER FISH: RESULTS FROM A LONG-TERM STUDENT PRACTICAL EXERCISE. *J. Biol. Educ.* 22(2):119-128. 1988. From Ecol. Abstr. 89(6):89L/05905. 1989. FR 35(1)

90-001239 Edwards, R. W. and M. Brooker. WYE. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 51-82. 1984. FR 35(1)
[Dep. Appl. Biol., Univ. Wales, Inst. Sci. & Technol., King Edward VII Ave., Cardiff CF1 3NU, Wales]

90-001240 Edwards, R. W.; P. F. Williams and R. Williams. EBBW. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 83-111. 1984. FR 35(1)
[Dep. Appl. Biol., Univ. Wales, Inst. Sci. & Technol., King Edward VII Ave., Cardiff CF1 3NU, Wales]

90-001241 Faber, Phyllis M.; Ed Keller; Anne Sands and Barbara M. Massey. THE ECOLOGY OF RIPARIAN HABITATS OF THE SOUTHERN CALIFORNIA COASTAL REGION: A COMMUNITY PROFILE. *U.S. Fish Wildl. Serv. Biol. Rep.* 85(7.27):152p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[212 Del Casa, Mill Valley, CA 94941]

90-001242 Fisher, Stuart G. and Nancy B. Grimm. DISTURBANCE AS A DETERMINANT OF STRUCTURE IN A SONORAN DESERT STREAM ECOSYSTEM. *Verh. Int. Ver. Limnol.* 23(2):1183-1189. 1988. FR 35(1)
[Dep. Zool., Ariz. State Univ., Tempe 85287]

90-001243 Fitzpatrick, C. THE USE OF BUFFER STRIPS IN CONTROLLING AGRICULTURAL RUNOFF. *In: Stream Protection - The Management of Rivers for Instream Uses. Ian C. Campbell, editor.* p. 75-84. 1986. FR 35(1)
[Environ. Protection Authority, Minist. Planning, Victoria Parade, East Melbourne, Vic., Australia]

90-001244 Fontvieille, D. and B. Cazelles. SEASONAL CHANGES OF SOME PHYSIOLOGICAL AND STRUCTURAL PARAMETERS IN THE SEDIMENTS OF AN ORGANICALLY POLLUTED STREAM. *Verh. Int. Ver. Limnol.* 23(3):1306-1312. 1988. FR 35(1)
[Univ. Savoie, Lab. Ecol., B.P. 1104, F-73011 Chanbery, France]

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

90-001245 Forbes, Anne M. POPULATION DYNAMICS OF SMALLMOUTH BASS (*MICROPTERUS DOLOMIEUI*) IN THE GALENA (FEVER) RIVER AND ONE OF ITS TRIBUTARIES. *Wis. Dep. Nat. Resour. Tech. Bull.* No. 165. 20p. 1989. FR 35(1)
[Bur. Res., Box 7921, Madison, WI 53707]

90-001246 Fox, Michael G. and Alfred M. Beeton. PHOSPHORUS CONCENTRATION TRENDS IN THE SALINE RIVER WATERSHED, USA. *Verh. Int. Ver. Limnol.* 23(2):1119-1124. 1988. FR 35(1)
[Dep. Biol., Queen's Univ., Kingston, ON, Canada K7L 3N6]

90-001247 Friedrich, G. and D. Muller. RHINE. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 265-315. 1984. FR 35(1)
[Landesamt Wasser Abfall Nordrhein-Westfalen, Auf dem Draap 25, 4000 Dusseldorf 1, West Germany]

90-001248 Glova, Gordon J. THE EFFECTS OF RIVER FLOWS ON SALMON FISHING IN A LARGE BRAIDED RIVER, NEW ZEALAND. *Verh. Int. Ver. Limnol.* 23(3):1790-1796. 1988. FR 35(1)
[Fish. Res. Div., Minist. Agric. & Fish., P.O. Box 8324, Christchurch, New Zealand] *Oncorhynchus tshawytscha.*

90-001249 Gore, James A. MECHANISMS OF COLONIZATION AND HABITAT ENHANCEMENT FOR BENTHIC MACROINVERTEBRATES IN RESTORED RIVER CHANNELS. *In: The Restoration of Rivers and Streams: Theories and Experience. James A. Gore, editor.* p. 81-101. 1986. FR 35(1)
[Fac. Nat. Sci., Univ. Tulsa, Tulsa, OK 74104]

90-001250 Gore, James A., editor. THE RESTORATION OF RIVERS AND STREAMS: THEORIES AND EXPERIENCE. *Butterworth Publ.* 280p. 1986. FR 35(1)
[Fac. Nat. Sci., Univ. Tulsa, Tulsa, OK] Selected chapters indexed in this issue of *Fisheries Review.*

90-001251 Halliwell, David Bishop. A CLASSIFICATION OF STREAMS IN MASSACHUSETTS: "TO BE USED AS FISHERIES MANAGEMENT TOOL". *Ph.D. dissertation, Univ. Mass.* 253p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(5):1716-1717. 1989. Order No. DA8917359. FR 35(1)
Catostomus commersoni, Rhinichthys atratulus, Salvelinus fontinalis, and *Salmo trutta.*

90-001252 Hartmann, J. and H. Quoss. [DREDGED EGGS, SPAWNING STOCK, HATCHERY QUOTA, YEAR-CLASS SUCCESS IN LAKE CONSTANCE.] *Osterreichs Fischerei* 42(4):84-87. 1989. In German with English summ. FR 35(1)
[Inst. Seenforschung & Fischereiwesen, Untere Seestr. 81, D-7994 Langenargen, West Germany] *Coregonus lavaretus.*

90-001253 Hasfurther, Victor R. THE USE OF MEANDER PARAMETERS IN RESTORING HYDROLOGIC BALANCE TO RECLAIMED STREAM BEDS. *In: The Restoration of Rivers and Streams: Theories and Experience. James A. Gore, editor.* p. 21-40. 1986. FR 35(1)
[Civil Eng. Dep., Univ. Wyo., Laramie 82071]

90-001254 Hedin, Lars O.; Marilyn S. Mayer and Gene E. Likens. THE EFFECT OF DEFORESTATION ON ORGANIC DEBRIS DAMS. *Verh. Int. Ver. Limnol.* 23(2):1135-1141. 1988. FR 35(1)
[Dep. Biol., Yale Univ., New Haven, CT 06511]

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

90-001255 Heise, P. GUDENA. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 25-49. 1984. FR 35(1)
[Gudena Comm., Teknisk Forvaltning, Arhus Amtskommune, Lyseng Alle 1, DK-8270 Hojbjerg, Denmark]

90-001256 Herbold, Bruce and Peter B. Moyle. THE ECOLOGY OF THE SACRAMENTO-SAN JOAQUIN DELTA: A COMMUNITY PROFILE. *U.S. Fish Wildl. Serv. Biol. Rep.* 85(7.22):106p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[Dep. Wildl. & Fish. Biol., Univ. Calif., Davis 95616]

90-001257 Herricks, Edwin E. and Lewis L. Osborne. WATER QUALITY RESTORATION AND PROTECTION IN STREAMS AND RIVERS. *In: The Restoration of Rivers and Streams: Theories and Experience. James A. Gore, editor.* p. 1-20. 1986. FR 35(1)
[Dep. Civil Eng., Univ. Ill., 208 N. Romine St., Urbana 61801]

90-001258 Heuff, H. and K. Horkan. CARAGH. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 363-384. 1984. FR 35(1)
[Dep. Bot., Univ. Coll., Dublin, Ireland]

90-001259 Holder-Franklin, M. A.; M. Franklin and T. Kaneko. CONTINUITY OF MAIN STREAM RIVER BACTERIA DEMONSTRATED BY FACTOR ANALYSIS. *Verh. Int. Ver. Limnol.* 23(4):1846-1854. 1988. FR 35(1)
[Dep. Biol. Sci., Univ. Windsor, Windsor, ON, Canada N0R 1A0]

90-001260 Holland, D. G. and J. P. C. Harding. MERSEY. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 113-144. 1984. FR 35(1)
[N.W. Water Authority, Rivers Div., Liverpool Rd., Great Sankey, Warrington, WA5 3LP, England]

90-001261 Horkan, K. SHANNON. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 345-362. 1984. FR 35(1)
[An Foras Forbartha Teoranta Lab., Pottery Rd., Kill of the Grange, Dun Laoghaire, Dublin, Ireland]

90-001262 Horkan, K. SUIR. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 385-400. 1984. FR 35(1)
[An Foras Forbatha Teoranta Lab., Pottery Rd., Kill of the Grange, Dun Laoghaire, Dublin, Ireland]

90-001263 Jensen, Arne Johan and Bjorn Ove Johnsen. THE EFFECT OF RIVER FLOW ON THE RESULTS OF ELECTROFISHING IN A LARGE, NORWEGIAN SALMON RIVER. *Verh. Int. Ver. Limnol.* 23(3):1724-1729. 1988. FR 35(1)
[Dir. Nat. Manage., Tungasletta 2, N-7000 Trondheim, Norway] *Salmo salar* and *S. trutta.*

90-001264 Judy, Robert D., Jr. ENHANCEMENT OF URBAN WATER QUALITY THROUGH CONTROL OF NONPOINT SOURCE POLLUTION: DENVER, COLORADO. *In: The Restoration of Rivers and Streams: Theories and Experience. James A. Gore, editor.* p. 247-276. 1986. FR 35(1)
[USDI, Office Surface Mining, Mining Analysis Div., Brooks Towers, 1020 15th St., Denver, CO 80202]

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

90-001265 Kawecka, B. and B. Szcesny. DUNAJEC. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 499-525. 1984. FR 35(1)
[Lab. Water Biol., Polish Acad. Sci., Slawkowska 17, Krakow, Poland]

90-001266 Koehn, John. APPROACHES TO DETERMINING FLOW AND HABITAT REQUIREMENTS FOR FRESHWATER NATIVE FISH IN VICTORIA. *In: Stream Protection - The Management of Rivers for Instream Uses. Ian C. Campbell, editor.* p. 95-113. 1986. FR 35(1)
[Arthur Rylah Inst., Heidelberg, Vic., Australia] *Gadopsis marmoratus* in Australia.

90-001267 Kownacki, Andrzej. A REGULATED RIVER ECOSYSTEM IN A POLLUTED SECTION OF THE UPPER VISTULA. 10. GENERAL CONSIDERATIONS. *Acta Hydrobiol.* 30(1/2):113-123. 1988. In English with Polish summ. FR 35(1)
[Polish Acad. Sci., Inst. Freshwater Biol., ul. Slawkowska 17, 31-016 Krakow, Poland]

90-001268 La Perriere, Jacqueline D.; Erwin E. Van Nieuwenhuyse and Patricia R. Anderson. HIGH SUBARCTIC ALASKA STREAM PRIMARY PRODUCTION. *Verh. Int. Ver. Limnol.* 23(2):1097. 1988. Abstract only. FR 35(1)
[Coop. Fish. Res. Unit, Univ. Alaska, Fairbanks 99775-0110]

90-001269 Lake, P. S. STREAM COMMUNITIES AND THE MANAGEMENT OF STREAMS. *In: Stream Protection - The Management of Rivers for Instream Uses. Ian C. Campbell, editor.* p. 3-21. 1986. FR 35(1)
[Dep. Zool., Monash Univ., Clayton, Vic. 3168, Australia]

90-001270 Lavandier, P. and H. Decamps. ESTARAGNE. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 237-264. 1984. FR 35(1)
[Lab. Hydrobiol., Univ. Paul-Sabatier, 118 Rt. Narbonne, 31062 Toulouse Cedex, France]

90-001271 Macmillan, Luisa A. CRITERIA FOR EVALUATING STREAMS FOR PROTECTION. *In: Stream Protection - The Management of Rivers for Instream Uses. Ian C. Campbell, editor.* p. 199-233. 1986. FR 35(1)
[Dep. Planning, Policy & Landscape, RMIT, GPO Box 2476V, Melbourne, Vic., Australia]

90-001272 Mahmud, Sawar. IMPACTS OF RIVER FLOW CHANGES ON COASTAL ECOSYSTEMS. *Renewable Resour. Inf. Ser. Coastal Manage. Publ.* No. 3. p. 511-586. 1985. FR 35(1)

90-001273 Manci, Karen M. RIPARIAN ECOSYSTEM CREATION AND RESTORATION: A LITERATURE SUMMARY. *U.S. Fish Wildl. Serv. Biol. Rep.* 89(20):59p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[TGS Technol., Inc., P.O. Box 9076, Fort Collins, CO 80525-0800]

90-001274 McMahon, T. A. HYDROLOGY AND MANAGEMENT OF AUSTRALIAN STREAMS. *In: Stream Protection - The Management of Rivers for Instream Uses. Ian C. Campbell, editor.* p. 23-44. 1986. FR 35(1)
[Dep. Civil & Agric. Eng., Univ. Melbourne, Melbourne, Vic., Australia]

90-001275 Minshall, G. Wayne; Sherman E. Jensen and William S. Platts. THE ECOLOGY OF STREAM AND RIPARIAN HABITATS OF THE GREAT BASIN REGION: A COMMUNITY PROFILE. *U.S. Fish Wildl. Serv. Biol. Rep.* 85(7.24):142p. 1989.

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

90-001275 CONTINUED Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[Idaho State Univ., Dep. Biol. Sci., Pocatello 83209]

90-001276 Naslund, I. EFFECTS OF HABITAT IMPROVEMENT ON THE BROWN TROUT, *SALMO TRUTTA* L., POPULATION OF A NORTHERN SWEDISH STREAM. *Aquacult. Fish. Manage.* 20(4):463-474. 1989. FR 35(1)
[Dep. Aquacult., Swedish Univ. Agric. Sci., Box 1457, S-901 24 Umea, Sweden]

90-001277 Neame, P. A. HYDROCHEMISTRY OF THE LOWER SOLO RIVER, INDONESIA. *Verh. Int. Ver. Limnol.* 23(3):1372-1379. 1988. FR 35(1)
[Pusat Studi Lingkungan, Univ. Hasanuddin, Ujung Pandang, Sulawesi Selatan, Indonesia]

90-001278 Olurin, K. B. and A. Sotubo. PRE-IMPOUNDMENT STUDIES OF THE FISHES OF OWA STREAM SOUTH-WEST, NIGERIA. *Arch. Hydrobiol.* 117(1):107-116. 1989. FR 35(1)
Dep. Biol. Sci., Ogun State Univ., P.M.B. 2002, Ago-Iwoye, Nigeria] Data for nine species.

90-001279 Oswood, Mark W. COMMUNITY STRUCTURE OF BENTHIC INVERTEBRATES IN INTERIOR ALASKAN (U.S.A.) STREAMS AND RIVERS. *Verh. Int. Ver. Limnol.* 23(2):1098. 1988. Abstract only. FR 35(1)
[Inst. Arctic Biol., Univ. Alaska, Fairbanks 99775]

90-001280 Pavlov, D. S.; V. Barus; V. K. Nezdolij and J. Gajdusek. DOWNSTREAM FISH MIGRATION FROM MOSTISTE AND VESTONICE RESERVOIRS. *Acta Sci. Nat. Acad. Sci. Bohemoslov. Brno* 21(12):1-64. 1987. From Ecol. Abstr. 89(5):89L/04767. 1989. FR 35(1)

90-001281 Pinter, I. and D. Backhaus. NECKAR. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 317-344. 1984. FR 35(1)
[Landesanst. Umweltschutz Baden-Wurttemberg, Inst. Wasser Abfallwirtschaft, Postfach 210752, 7500 Karlsruhe 21, West Germany]

90-001282 Poff, N. LeRoy and J. V. Ward. IMPLICATIONS OF STREAMFLOW VARIABILITY AND PREDICTABILITY FOR LOTIC COMMUNITY STRUCTURE: A REGIONAL ANALYSIS OF STREAMFLOW PATTERNS. *Can. J. Fish. Aquat. Sci.* 46(10):1805-1818. 1989. In English with French summ. FR 35(1)
[Dep. Biol., Colo. State Univ., Fort Collins 80523]

90-001283 Power, Mary E.; Tom L. Dudley and Scott D. Cooper. GRAZING CATFISH, FISHING BIRDS, AND ATTACHED ALGAE IN A PANAMANIAN STREAM. *Environ. Biol. Fishes* 26(4):285-294. 1989. FR 35(1)
[Dep. Zool., Univ. Calif., Berkeley 94720] *Rineloricaria uracantha, Hypostomus plecostomus, Ancistrus spinosus,* and *Chaetostoma fischeri.*

90-001284 Prat, N. F.; M. A. Puig; G. Gonzalez; M. F. Tort and M. Estrada. LLOBREGAT. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 527-552. 1984. FR 35(1)
[Dep. Ecol., Fac. Biol., Univ. Barcelona, Avda. Diagonal 645, Barcelona 28, Spain]

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

90-001285 Prat, N.; I. Munoz; J. Camp; F. A. Comin; J. R. Lucena; J. Romero and M. Vidal. SEASONAL CHANGES IN PARTICULATE ORGANIC CARBON AND NITROGEN IN THE RIVER AND DRAINAGE CHANNELS OF THE EBRO DELTA (N.E. SPAIN). *Verh. Int. Ver. Limnol.* 23(3):1344-1349. 1988. FR 35(1)
[Dep. Ecol., Fac. Biol., Univ. Barcelona, Diagonal 645, Barcelona, Spain]

90-001286 Resetarits, William John, Jr. ECOLOGICAL INTERACTIONS AMONG PREDATORS IN HEADWATER STREAM COMMUNITIES. *Ph.D. dissertation, Duke Univ.* 159p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(6):2256-2257. 1989. Order No. DA8919243. FR 35(1)
Salvelinus fontinalis.

90-001287 Richardson, Barbara A. EVALUATION OF INSTREAM FLOW METHODOLOGIES FOR FRESHWATER FISH IN NEW SOUTH WALES. *In: Stream Protection - The Management of Rivers for Instream Uses. Ian C. Campbell, editor.* p. 143-167. 1986. FR 35(1)
[Fish. Res. Inst., Dep. Agric., Cronulla, N.S.W. 2230, Australia]

90-001288 Rupprecht, R. A LONG-TIME CHEMICAL OBSERVATION OF FIFTEEN MOUNTAIN STREAMS IN CENTRAL EUROPE. *Verh. Int. Ver. Limnol.* 23(3):1313-1319. 1988. FR 35(1)
[Inst. Zool., Saarstr. 21, D-6500 Mainz, West Germany]

90-001289 Ryder, G. I. and D. Scott. THE APPLICABILITY OF THE RIVER CONTINUUM CONCEPT TO NEW ZEALAND STREAMS. *Verh. Int. Ver. Limnol.* 23(3):1441-1445. 1988. FR 35(1)
[Dep. Zool., Univ. Otago, P.O. Box 56, Dunedin, New Zealand]

90-001290 Scarnecchia, Dennis L.; Arni Isaksson and S. E. White. OCEANIC AND RIVERINE INFLUENCES ON VARIATIONS IN YIELD AMONG ICELANDIC STOCKS OF ATLANTIC SALMON. *Trans. Am. Fish. Soc.* 118(5):482-494. 1989. FR 35(1)
[Dep. Anim. Ecol., Iowa State Univ., Ames 50011] *Salmo salar.*

90-001291 Scott, M. T. and L. A. Nielsen. YOUNG FISH DISTRIBUTION IN BACKWATERS AND MAIN-CHANNEL BORDERS OF THE KANAWHA RIVER, WEST VIRGINIA. *J. Fish Biol.* 35(Suppl. A):21-27. 1989. FR 35(1)
[Dep. Fish. & Wildl. Sci., VPI&SU, Blacksburg, VA 24061] *Notropis atherinoides, Dorosoma cepedianum,* and *Lepomis* spp.

90-001292 Shields, F. Douglas, Jr., and Steven R. Abt. SEDIMENT DEPOSITION IN CUTOFF MEANDER BENDS AND IMPLICATIONS FOR EFFECTIVE MANAGEMENT. *Regul. Rivers Res. Manage.* 4(4):381-396. 1989. FR 35(1)
[U.S. Army Eng. Waterways Exp. Stn., Vicksburg, MS 39181-0631]

90-001293 Skulberg, O. M. and A. Lillehammer. GLAMA. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 469-498. 1984. FR 35(1)
[Norwegian Inst. Water Res., P.O. Box 333, Blindern, Oslo 3, Norway]

90-001294 Stahlberg, S. [FISH SPECIES OF THE BROOKS NETTE AND NEILE. DISTRIBUTION OF SPECIES AND INFLUENCE OF ANGLERS.] *Landschaft Stadt* 20(2):85-89. 1988. In German with English summ. From Ecol. Abstr. 89(5):89L/04766. 1989. FR 35(1)

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

90-001295 Stanford, Jack A.; F. Richard Hauer and James V. Ward. SERIAL DISCONTINUITY IN A LARGE RIVER SYSTEM. *Verh. Int. Ver. Limnol.* 23(2):1114-1118. 1988. FR 35(1)
[Flathead Lake Biol. Stn., Univ. Mont., Polson 59860]

90-001296 Starnes, Lynn B. AQUATIC COMMUNITY RESPONSE TO TECHNIQUES UTILIZED TO RECLAIM EASTERN U.S. COAL SURFACE MINE-IMPACTED STREAMS. *In: The Restoration of Rivers and Streams: Theories and Experience. James A. Gore, editor.* p. 193-222. 1986. FR 35(1)
[U.S. Fish & Wildl. Serv., Div. Program Operations-Fish., Washington, DC 20240]

90-001297 Teirney, Laurel D. THE NEW ZEALAND RIVER ANGLING SURVEY. *Verh. Int. Ver. Limnol.* 23(3):1805-1806. 1988. FR 35(1)
[Fish. Res. Div., Minist. Agric. & Fish., P.O. Box 297, Wellington, New Zealand]

90-001298 Tierney, Laurel. RIVER PROTECTION AND FLOW REQUIREMENTS FOR FISH: THE NEW ZEALAND EXPERIENCE. *In: Stream Protection - The Management of Rivers for Instream Uses. Ian C. Campbell, editor.* p. 169-197. 1986. FR 35(1)
[MAF, Fish. Res. Div., Wellington, New Zealand]

90-001299 Troelstrup, Nels H., Jr., and James A. Perry. SPATIAL AND TEMPORAL PATTERNS OF WATER QUALITY IN SOUTHEASTERN MINNESOTA STREAMS. *J. Minn. Acad. Sci.* 54(3):18. 1989. Abstract only. FR 35(1)
[Dep. For. Resour., Univ. Minn., St. Paul 55108]

90-001300 Van Urk, G. LOWER RHINE-MEUSE. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 437-468. 1984. FR 35(1)
[Rijksinst. Zuivering Afvalwater, Postbus 17, Maerlant 6, 8200 AA Leystad, Netherlands]

90-001301 Wang, Ching-ming James. ENVIRONMENTAL QUALITY AND FISH COMMUNITY ECOLOGY IN AN AGRICULTURAL MOUNTAIN STREAM SYSTEM OF TAIWAN. *Ph.D. dissertation, Iowa State Univ.* 142p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(6):2258. 1989. Order No. DA8920195. FR 35(1)
Varicorhinus barbatus, Crossostoma lacustre, Rhinogobius brunneus, and *Oncorhynchus masou formosanus.*

90-001302 Wesche, Thomas A. STREAM CHANNEL MODIFICATIONS AND RECLAMATION STRUCTURES TO ENHANCE FISH HABITAT. *In: The Restoration of Rivers and Streams: Theories and Experience. James A. Gore, editor.* p. 103-163. 1986. FR 35(1)
[Water Resour. Res. Cent., Univ. Wyo., P.O. Box 3067, Univ. Stn., Laramie 82071]

90-001303 Whitton, B. A. and D. T. Crisp. TEES. *In: Ecology of European Rivers. B. A. Whitton, editor.* p. 145-178. 1984. FR 35(1)
[Dep. Bot., Univ. Durham, Durham DH1 3LE, England]

90-001304 Whitton, B. A., editor. ECOLOGY OF EUROPEAN RIVERS. *Balckwell Sci. Publ.* 644p. 1984. FR 35(1)
[Dep. Bot., Univ. Durham, Durham, England] Selected chapters indexed in this issue of *Fisheries Review.*

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

90-001305 Wilzbach, Margaret A.; Kenneth W. Cummins and Roland A. Knapp. TOWARD A FUNCTIONAL CLASSIFICATION OF STREAM INVERTEBRATE DRIFT. *Verh. Int. Ver. Limnol.* 23(2):1244-1254. 1988. FR 35(1)
[Aquat. Biol. Program, Dep. Biol., Univ. Ala., Tuscaloosa 35487]

90-001306 Wilzbach, Margaret A. RESPONSE OF STREAM FISH POPULATIONS TO CHANGING LAND USE. *In: Stream Protection - The Management of Rivers for Instream Uses. Ian C. Campbell, editor.* p. 85-94. 1986. FR 35(1)
[Appalachian Environ. Lab., Cent. Environ. & Estuarine Studies, Univ. Md., Frostburg 21532]

90-001307 Winget, Robert N. METHODS FOR DETERMINING SUCCESSFUL RECLAMATION OF STREAM ECOSYSTEMS. *In: The Restoration of Rivers and Streams: Theories and Experience. James A. Gore, editor.* p. 165-192. 1986. FR 35(1)
[Aquat. Ecol. Lab., Dep. Zool., Brigham Young Univ., Provo, UT 84602]

90-001308 Winterbourn, M. J.; K. J. Collier and A. K. Graesser. ECOLOGY OF SMALL STREAMS ON THE WEST COAST OF THE SOUTH ISLAND, NEW ZEALAND. *Verh. Int. Ver. Limnol.* 23(3):1427-1431. 1988. FR 35(1)
[Dep. Zool., Univ. Canterbury, Christchurch, New Zealand]

90-001309 Winterbourn, M. J. FORESTRY PRACTICES AND STREAM COMMUNITIES WITH PARTICULAR REFERENCE TO NEW ZEALAND. *In: Stream Protection - The Management of Rivers for Instream Uses. Ian C. Campbell, editor.* p. 57-73. 1986. FR 35(1)
[Dep. Zool., Univ. Canterbury, Christchurch, New Zealand]

90-001310 Wlodek, Jan Marian and Stanislaw Skora. A REGULATED RIVER ECOSYSTEM IN A POLLUTED SECTION OF THE UPPER VISTULA. 9. ICHTHYOFAUNA. *Acta Hydrobiol.* 30(1/2):99-111. 1988. In English with Polish summ. FR 35(1)
[Polish Acad. Sci., Inst. Freshwater Biol., ul. Slawkowska 17, 31-016 Krakow, Poland] Data for 17 species.

90-001311 Wright, J. F.; P. D. Armitage; M. T. Furse and D. Moss. A NEW APPROACH TO THE BIOLOGICAL SURVEILLANCE OF RIVER QUALITY USING MACROINVERTEBRATES. *Verh. Int. Ver. Limnol.* 23(3):1548-1552. 1988. FR 35(1)
[Freshwater Biol. Assoc., East Stoke, Wareham, Dorset BH20 6BB, England]

FARM POND AND SMALL IMPOUNDMENT MANAGEMENT AND RESEARCH

90-001312 Maciolek, J. A. TUNDRA PONDS OF THE YUKON DELTA, ALASKA, AND THEIR INVERTEBRATE COMMUNITIES. *Verh. Int. Ver. Limnol.* 23(1):212. 1988. Abstract only. FR 35(1)
[Natl. Fish. Res. Cent., Bldg. 204, Naval Stn., Seattle, WA 98115]

90-001313 Whitman, R. L.; A. V. Gochee and P. L. Ruckman. BIOLOGICAL ASSEMBLAGES OF MILLER WOODS PONDS, INDIANA DUNES NATIONAL LAKESHORE, GARY, INDIANA. *Verh. Int. Ver. Limnol.* 23(2):1041-1048. 1988. FR 35(1)
[Dep. Biol., Indiana Univ., Gary 46408]

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH

90-001314 Amarasinghe, U. S. GROWTH OVERFISHING: A POTENTIAL DANGER IN THE SRI LANKAN RESERVOIR FISHERY. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 105-112. 1988. FR 35(1)
[Natl. Aquat. Resour. Agency, Crow Island, Colombo 15, Sri Lanka] *Tilapia mossambica.*

90-001315 Amarasinghe, U. S. THE ROLE OF FISHERMEN IN IMPLEMENTING MANAGEMENT STRATEGIES IN THE RESERVOIRS OF SRI LANKA. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 158-163. 1988. FR 35(1)
[Natl. Aquat. Resour. Agency, Crow Island, Colombo 15, Sri Lanka]

90-001316 Armengol, J.; F. Sabater; J. L. Riera and M. A. Puig. LONGITUDINAL CHANGES IN THE ZOOPLANKTON COMMUNITIES ALONG A SERIES OF RESERVOIRS IN THE GUADIANA RIVER (W. SPAIN). *Verh. Int. Ver. Limnol.* 23(2):1006-1010. 1988. FR 35(1)
[Dep. Ecol., Fac. Biol., Univ. Barcelona, Ave. Diagonal 645, 08028 Barcelona, Spain]

90-001317 Bankole, N. O. THE FISH AND FISHERIES OF LAKE TIGA (A MAN-MADE LAKE) IN KANO STATE. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 12-22. 1989. FR 35(1)

90-001318 Beveridge, M. C. M. and M. J. Phillips. AQUACULTURE IN RESERVOIRS. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 234-243. 1988. FR 35(1)
[Inst. Aquacult., Univ. Stirling, Stirling FK9 4LA, Scotland]

90-001319 Bhukaswan, T. and T. Chookajorn. RESERVOIR FISHERIES MANAGEMENT IN THAILAND. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 154-157. 1988. FR 35(1)
[Dep. Fish., Bangkok, Thailand]

90-001320 Brayton, Steve and Roger Schneidervin. FLAMING GORGE RESERVOIR FISHERIES INVESTIGATIONS: ANNUAL PERFORMANCE REPORT. *Utah Dep. Nat. Resour. Publ.* No. 84-07. 17p. 1989. FR 35(1)
[Dep. Nat. Resour., Div. Wildl. Resour., 1596 W. North Temple, Salt Lake City, UT 84116] *Oncorhynchus clarki, O. mykiss, O. nerka, Salmo trutta, Salvelinus namaycush, Ictalurus punctatus,* and *Micropterus dolomieui.*

90-001321 Chookajorn, T. and T. Bhukaswan. PRESENT STATUS OF THE RESERVOIR FISHERIES IN THAILAND. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 29. 1988. Abstract only. FR 35(1)
[Dep. Fish., Bangkok, Thailand]

90-001322 Costa-Pierce, B. A.; G. W. Atmadja; P. Effendi and Sutandar Zainal. INTEGRATED AQUACULTURE SYSTEMS IN THE SAGULING RESERVOIR, WEST JAVA, INDONESIA. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 224-233. 1988. FR 35(1)
[ICLARM, P.O. Box 1501, Makati, Metro Manila, Philippines] *Cyprinus carpio.*

90-001323 Cotta-Ramusino, Mario and Giuseppe Crosa. NUTRIENT LOAD AND PROVISIONAL VALUATION IN AN ARTIFICIAL RESERVOIR. *Verh. Int. Ver. Limnol.* 23(2):1011-1013. 1988. FR 35(1)
[Dip. Biol., Sez. Ecol., Via Celoria 26, 20133 Milan, Italy]

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH (CONTINUED)

90-001324 Craig, J. F. and R. A. Bodaly. RESERVOIR FISHERIES MANAGEMENT AND ENVIRONMENTAL IMPACTS: WESTERN EXPERIENCES. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 195-201. 1988. FR 35(1)
[Dep. Fish. & Oceans, Cent. & Arctic Region, 501 University Crescent, Freshwater Inst., Winnipeg, MB, Canada R3T 2N6]

90-001325 De Silva, S. S. RESERVOIR BED PREPARATION IN RELATION TO FISHERIES DEVELOPMENT: AN EVALUATION. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 121-130. 1988. FR 35(1)
[Dep. Zool., Univ. Ruhuna, Matara, Sri Lanka]

90-001326 De Silva, S. S. THE RESERVOIR FISHERY OF ASIA. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 19-28. 1988. FR 35(1)
[Dep. Zool. & Fish. Biol., Univ. Ruhuna, Matara, Sri Lanka]

90-001327 De Silva, Sena S., editor. RESERVOIR FISHERY MANAGEMENT AND DEVELOPMENT IN ASIA. PROCEEDINGS OF A WORKSHOP HELD IN KATHMANDU, NEPAL, 23-28 NOVEMBER 1987. *Int. Dev. Res. Cent.* 243p. 1988. FR 35(1)
[Dep. Zool., Univ. Ruhuna, Matana, Sri Lanka] Selected papers indexed in this issue of *Fisheries Review.*

90-001328 Duncan, A. and F. Schiemer. FISH PRESSURES ON ECOSYSTEMS: DYNAMIC, HOLISTIC INDICES. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 176-182. 1988. FR 35(1)
[Dep. Biol., Royal Holloway & Bedford New Coll., Egham, Surrey, England]

90-001329 Grobbelaar, Johan U. THE CONTRIBUTION OF PHYTOPLANKTON IN TURBID FRESHWATERS TO THEIR TROPHIC STATUS. *Verh. Int. Ver. Limnol.* 23(2):1020-1021. 1988. Abstract only. FR 35(1)
[Unit Limnol., P.O. Box 339, Bloemfontein 9300, South Africa]

90-001330 Guerrero, R. D. III. THE STATUS OF RESERVOIR FISHERIES IN THE PHILIPPINES. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 14-18. 1988. FR 35(1)
[Fish. Res. Dep., Philippine Council Agric. & Resour. Res. & Dev., Los Banos, Laguna, Philippines]

90-001331 Guerrero, R. D. III and E. V. Manalili. FISHERIES MANAGEMENT STRATEGIES IN TWO RESERVOIRS IN THE PHILIPPINES. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 202. 1988. Abstract only. FR 35(1)
[Fish. Res. Dep., Philippine Council Agric. & Resour. Res. & Dev., Los Banos, Laguna, Philippines]

90-001332 Gunatilaka, A. NUTRIENT CYCLING IN TROPICAL ASIAN RESERVOIRS: SOME IMPORTANT ASPECTS WITH SPECIAL REFERENCE TO PARAKRAMA SAMUDRA, SRI LANKA. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 34-46. 1988. FR 35(1)
[Dep. Limnol., Inst. Zool., Univ. Vienna, Althanstr. 14, A-1090 Vienna, Austria]

90-001333 Hardjamulia, Atmadja; K. Endi Setiadi and N. Sweta Rabegnatar. SOME BIOLOGICAL ASPECTS OF THE PREDOMINANT FISH SPECIES IN THE JATILUHUR RESERVOIR, WEST JAVA, INDONESIA. *In: Reservoir Fishery Management and*

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH (CONTINUED)

90-001333 CONTINUED *Development in Asia. Sena S. De Silva, editor.* p. 98-104. 1988. FR 35(1)
[Res. Inst. Freshwater Fish., Agency Agric. Res. & Dev., Bogor, Indonesia]

90-001334 Hardjamulia, Atmadja and P. Suwignyo. THE PRESENT STATUS OF THE RESERVOIR FISHERY IN INDONESIA. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 8-13. 1988. FR 35(1)
[Res. Inst. Freshwater Fish., Jalan Sempur No. 1, Bogor, Indonesia] *Cyprinus carpio.*

90-001335 Hocking, G. C. and J. C. Patterson. TWO DIMENSIONAL MODELLING OF RESERVOIR OUTFLOWS. *Verh. Int. Ver. Limnol.* 23(4):2226-2231. 1988. FR 35(1)
[Cent. Water Res., Univ. Western Australia, Nedlands, W.A. 6009, Australia]

90-001336 Jarvis, Andrew C. ECOLOGICAL PROBLEMS IN HARTBEESPOORT DAM. *J. Limnol. Soc. South. Afr.* 14(2):82-86. 1988. FR 35(1)
[Natl. Inst. Water Res., CSIR, P.O. Box 395, Pretoria 0001, South Africa] *Tilapia mossambica* and *Clarias gariepinus* in South Africa.

90-001337 Kagawa, H.; M. Togashi and Z. Kawabata. COMPARISON OF P, Ca AND Mg CONTENTS OF PHYTOPLANKTON BETWEEN THE HEADS OF TWO RIVER RESERVOIRS WITH DIFFERENT PHOSPHORUS LOADING. *Verh. Int. Ver. Limnol.* 23(2):1022-1027. 1988. FR 35(1)
[Dep. Environ. Conserv., Ehime Univ., Tarumi 3-5-7, Matsuyama 790, Japan]

90-001338 Li Sifa. THE PRINCIPLES AND STRATEGIES OF FISH CULTURE IN CHINESE RESERVOIRS. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 214-223. 1988. FR 35(1)
[Dep. Agric., Shanghai Fish. Univ., 334 Jun Gong Rd., Shanghai, China] *Hypophthalmichthys nobilis* and *H. molitrix.*

90-001339 Marsh, Paul C. and Diana Papoulias. ICHTHYOPLANKTON OF LAKE HAVASU, A COLORADO RIVER IMPOUNDMENT, ARIZONA-CALIFORNIA. *Calif. Fish Game* 75(2):68-73. 1989. FR 35(1)
[Cent. Environ. Studies & Dep. Zool., Ariz. State Univ., Tempe 85287] *Cyprinus carpio, Dorosoma petenense, Lepomis* sp., *Xyrauchen texanus, Pomoxis nigromaculatus, Micropterus salmoides, Ictalurus punctatus,* and *Morone saxatilis.*

90-001340 Muthukumarana, G. and D. E. M. Weerakoon. CAGE-CULTURE PRACTICES IN SRI LANKAN RESERVOIRS. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 206-213. 1988. FR 35(1)
[Inland Fish. Div., Minist. Fish., Colombo 10, Sri Lanka] *Tilapia nilotica.*

90-001341 Pandian, T. J. ENERGY FLOW AND PRESENT STATUS OF SMALL IRRIGATION RESERVOIRS IN SOUTHERN TAMIL NADU, INDIA. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 69-73. 1988. FR 35(1)
[School Biol. Sci., Madurai Kamaraj Univ., Madurai 625 021, Tamil Nadu, India]

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH (CONTINUED)

90-001342 Pradhan, B. R. and D. Swar. LIMNOLOGY AND FISHERY POTENTIAL OF THE INDRASAROBAR RESERVOIR AT KULEKHANI, NEPAL. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 87-96. 1988. FR 35(1)
[Fish. Sect., Hariharbhawan, Pulchok, Kathmandu, Nepal]

90-001343 Pradhan, B. R. POTENTIAL OF RESERVOIR FISHERY DEVELOPMENT IN NEPAL. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 29. 1988. Abstract only. FR 35(1)
[Fish. Dev. Sect., Minist. Agric., Kathmandu, Nepal]

90-001344 Rahman, M. A. THE NEED FOR RESERVOIR FISHERY MANAGEMENT IN BANGLADESH. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 164-168. 1988. FR 35(1)
[Fish. Res. Inst., Mymensingh, Bangladesh]

90-001345 Schiemer, F. and A. Duncan. THE SIGNIFICANCE OF THE ECOSYSTEM APPROACH FOR RESERVOIR MANAGEMENT. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 183-194. 1988. FR 35(1)
[Dep. Limnol., Univ. Austria, Vienna, Austria] *Tilapia mossambica* in Sri Lanka.

90-001346 Sharma, R. C. AIMS AND STRATEGIES OF FISHERIES MANAGEMENT FOR THE TEHRI DAM RESERVOIR IN THE GARHWAL HIMALAYA, INDIA. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 145-153. 1988. FR 35(1)
[Dep. Zool., Univ. Garhwal, Srinagar-Garhwal 246 174, Uttar Pradesh, India]

90-001347 Singit, G. S.; P. Ramamohan Reddy and H. V. Krishnamaraju. POSTIMPOUNDMENT CHANGES AND EFFECTS OF CONFLICTING USES ON THE FISHERIES OF TUNGABHADRA RESERVOIR, INDIA. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 136-144. 1988. FR 35(1)
[Fish. Branch, Tungabhadra Board, Tungabhadra Dam-583 225, Karnataka, India]

90-001348 Sirisena, H. K. G. and S. S. De Silva. NONCONVENTIONAL FISH RESOURCES IN SRI LANKAN RESERVOIRS. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 113-120. 1988. FR 35(1)
[Inland Fish. Div., Minist. Fish., P.O. Box 1707, Colombo 10, Sri Lanka]

90-001349 Suwignyo, P. THE CONCEPT OF RESERVOIR FISHERIES MANAGEMENT. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 202. 1988. Abstract only. FR 35(1)
[Fac. Fish., Bogor Agric. Univ., Bogor, Indonesia]

90-001350 Taylor, Barbara E. and Diane L. Mahoney. EXTINCTION AND RECOLONIZATION: PROCESSES REGULATING ZOOPLANKTON DYNAMICS IN A COOLING RESERVOIR. *Verh. Int. Ver. Limnol.* 23(3):1536-1541. 1988. FR 35(1)
[Savannah River Ecol. Lab., Drawer E, Aikens, SC 29802]

90-001351 Vijverberg, J. EFFICIENCY OF TWO TYPES OF NETS FOR SAMPLING MICROCRUSTACEAN ZOOPLANKTON IN THREE SRI LANKAN RESERVOIRS AND A DISCUSSION OF SAMPLING METHODS. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 47-57. 1988. FR 35(1)
[Limnol. Inst., Tjeukemeer Lab., de Akkers 47, 8536 VD Oosterzee, Netherlands]

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH (CONTINUED)

90-001352 Vijverberg, J.; M. Arunachalam and P. B. Amarasinghe. SEASONAL DYNAMICS OF COPEPODS AND CLADOCERANS IN FIVE SRI LANKA RESERVOIRS. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 58-68. 1988. FR 35(1)
[Limnol. Inst., Tjeukemeer Lab., de Akkers 47, 8536 VD Oosterzee, Netherlands]

90-001353 Wickstrom, H. and O. Enderlain. AGE AND GROWTH OF *ANGUILLA BICOLOR* AND *ANGUILLA NEBULOSA*: A CASE STUDY. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 131. 1988. Abstract only. FR 35(1)
[Inst. Freshwater Res., S-17011 Drottningholm, Sweden]

90-001354 Xu Senlin. FISHING TECHNIQUES IN CHINESE RESERVOIRS. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 169-175. 1988. FR 35(1)
[Shanghai Fish. Univ., 334 Jun Gong Rd., Shanghai, China]

90-001355 Yap Siaw-Yang. WATER-QUALITY CRITERIA FOR THE PROTECTION OF AQUATIC LIFE AND ITS USERS IN TROPICAL ASIAN RESERVOIRS. *In: Reservoir Fishery Management and Development in Asia. Sena S. De Silva, editor.* p. 74-86. 1988. FR 35(1)
[Zool. Dep., Univ. Malaya, 59100 Kuala Lumpur, Malaysia]

90-001356 Zimmerman, Marc J. MODELING WATER QUALITY IN RESERVOIR TAILWATERS. *Verh. Int. Ver. Limnol.* 23(2):772-777. 1988. FR 35(1)
[U.S. Army Eng. Waterways Exp. Stn., Environ. Lab., Vicksburg, MS 39180-0631]

ESTUARY MANAGEMENT AND RESEARCH

90-001357 Baird, Daniel and Robert E. Ulanowicz. THE SEASONAL DYNAMICS OF THE CHESAPEAKE BAY ECOSYSTEM. *Ecol. Monogr.* 59(4):329-364. 1989. FR 35(1)
[Dep. Zool., Univ. Port Elizabeth, P.O. Box 1600, Port Elizabeth 6000, South Africa]

90-001358 Cyrus, D. P. TURBIDITY AND OTHER PHYSICAL FACTORS IN NATAL ESTUARINE SYSTEMS. PART 1: SELECTED ESTUARIES. *J. Limnol. Soc. South. Afr.* 14(2):60-71. 1988. FR 35(1)
[Dep. Zool., Univ. Zululand, Private Bag X1001, KwaDlangezwa 3886, Natal, South Africa]

90-001359 Marais, J. F. K. SOME FACTORS THAT INFLUENCE FISH ABUNDANCE IN SOUTH AFRICAN ESTUARIES. *S. Afr. J. Mar. Sci.* No. 6. p. 67-77. 1988. From Ecol. Abstr. 89(5):89L/04680. 1989. FR 35(1)

90-001360 Martin, T. J. NICHE SEPARATION IN *AMBASSIS* (PISCES: PERCIFORMES) SPECIES CO-EXISTING IN ESTUARIES OF SOUTH-EAST AFRICA. *J. Fish Biol.* 35(Suppl. A):321-328. 1989. FR 35(1)
[Coastal Res. Unit Zululand, Dep. Zool., Univ. Zululand, Kwa Dlangezwa 3886, South Africa] *A. productus, A. natalensis,* and *A. gymnocephalus.*

ESTUARY MANAGEMENT AND RESEARCH (CONTINUED)

90-001361 Omar, Othman Abdu Hashim. ABUNDANCE AND DISTRIBUTION OF ICHTHYOPLANKTON IN THE FIRTH OF FORTH, SCOTLAND. *Ph.D. dissertation, Heriot-Watt Univ. (United Kingdom)* 407p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(6):2229. 1989. Order No. BRDX86370. FR 35(1)

90-001362 Pearson, Donald E. SURVEY OF FISHES AND WATER PROPERTIES OF SOUTH SAN FRANCISCO BAY, CALIFORNIA, 1973-82. *NOAA (Natl. Oceanic Atmos. Admin.) Tech. Rep. NMFS (Natl. Mar. Fish. Serv.)* No. 78. 21p. 1989. FR 35(1)
[Tiburon Lab., Southwest Fish. Cent., NMFS, NOAA, 3150 Paradise Dr., Tiburon, CA 94920] *Engraulis mordax, Parophrys vetulus,* and *Cymatogaster aggregata.*

MARINE MANAGEMENT AND RESEARCH

90-001363 Aragones, Naniel V. and Reynaldo M. de la Paz. ECOLOGICAL NOTES ON THE JUVENILE SIGANID *(PADAS)* HARVEST IN BOLINAO, PANGASINAN, PHILIPPINES. *Micronesica* 22(2):191-195. 1989. FR 35(1)
[Mar. Sci. Inst., Univ. Philippines, Diliman, Quezon City, Philippines] *Siganus fuscescens, S. spinus,* and *S. argenteus.*

90-001364 Arenas, Pablo. SPATIAL BEHAVIOR OF FISH AND FISHERMEN: THE USE OF HABITAT SELECTION AND OPTIMAL FORAGING THEORY IN FISHERIES. *Ph.D. dissertation, Univ. Wash.* 244p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(5):1714. 1989. Order No. DA8911604. FR 35(1)
Engraulis mordax.

90-001365 Badenhorst, A. ASPECTS OF THE SOUTH AFRICAN LONGLINE FISHERY FOR KINGKLIP *GENYPTERUS CAPENSIS* AND THE CAPE HAKES *MERLUCCIUS CAPENSIS* AND *M. PARADOXUS. S. Afr. J. Mar. Sci.* No. 6. p. 33-42. 1988. From Ecol. Abstr. 89(5):89L/05633. 1989. FR 35(1)

90-001366 Bakova, E. G.; M. I. Maminskia and L. I. Semokova, editors. [FISHERY-OCEANOLOGICAL RESEARCHES IN THE ATLANTIC AND SOUTH-EAST PACIFIC OCEAN.] *Tr. Atl. Nauchno-Issled. Inst. Rybn. Khoz. Okeanogr.* No. 2089. 143p. 1988. In Russian with English summ. FR 35(1)
Selected papers indexed in this issue of *Fisheries Review.*

90-001367 Begossi, Alpina. FOOD DIVERSITY AND CHOICE, AND TECHNOLOGY IN A BRAZILLIAN FISHING COMMUNITY (BUZIOS ISLAND, SAO PAULO STATE). *Ph.D. dissertation, Univ. Calif. (Davis)* 233p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(5):1755. 1989. Order No. DA8919534. FR 35(1)
Pomatomus saltator.

90-001368 Bennett, B. A. SOME CONSIDERATIONS FOR THE MANAGEMENT IN SOUTH AFRICA OF GALJOEN *CORACINUS CAPENSIS* (CUVIER), AN IMPORTANT SHORE-ANGLING SPECIES OFF THE SOUTH-WESTERN CAPE. *S. Afr. J. Mar. Sci.* No. 6. p. 133-142. 1988. From Ecol. Abstr. 89(5):89L/05635. 1989. FR 35(1)

90-001369 Bevan, Donald E. COMMENTS ON THE BIOLOGICAL BASIS FOR MANAGEMENT OF GROUNDFISH RESOURCES OF THE WEST COAST OF CANADA. *Lect. Notes Coastal Estuarine Stud.* 28:232-234. 1988. FR 35(1)
[Univ. Wash., Coll. Ocean & Fish. Sci., Mail Stop HN-15, Seattle 98195]

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

90-001370 Bonsdorff, Erik and Ea Maria Blomqvist. DO EXCEPTIONAL WINTERS AFFECT THE ZOOBENTHOS AND FISH IN SHALLOW, BRACKISH ARCHIPELAGO WATERS? AN EXAMPLE FROM THE NORTHERN BALTIC SEA. *Mem. Soc. Fauna Flora Fenn.* 65(2):47-53. 1989. In English. FR 35(1)
[Dep. Biol. & Huso Biol. Stn., Abo Akad., SF-20500 Abo, Finland]

90-001371 Borisov, V. M. and A. A. Elizarov. LONG-TERM VARIATIONS OF BIOTIC AND ABIOTIC CONDITIONS IN THE ECOSYSTEM OF THE BARENTS SEA. *J. Fish Biol.* 35(Suppl. A):139-144. 1989. FR 35(1)
[VNIRO, 17 V. Krasnoselskaya, Moscow 107140, USSR] *Gadus morhua.*

90-001372 Bricklemyer, Eugene C., Jr.,; Suzanne Iudicello and Hans J. Hartmann. DISCARDED CATCH IN U.S. COMMERCIAL MARINE FISHERIES. *Audubon Wildl. Rep.* 1989/90:259-295. 1989. FR 35(1)

90-001373 Buch, Erik and Manfred Stein. ENVIRONMENTAL CONDITIONS OFF WEST GREENLAND, 1980-85. *J. Northwest Atl. Fish. Sci.* 9(1):81-89. 1989. FR 35(1)
[Greenland Fish. Res. Inst., Tagensvej 135, DK-2200 Copenhagen N, Denmark]

90-001374 Caddy, J. F. and G. D. Sharp. AN ECOLOGICAL FRAMEWORK FOR MARINE FISHERY INVESTIGATIONS. *FAO Fish. Tech. Pap.* No. 283. 152p. 1986. FR 35(1)

90-001375 Carpine, Christian. [ECOLOGY OF THE BATHYAL ZONE IN THE WESTERN MEDITERRANEAN.] *Mem. Inst. Oceanogr. (Monaco)* No. 2. 146p. 1970. In French with English and Russian summ. FR 35(1)

90-001376 Clark, John R., editor. COASTAL RESOURCES MANAGEMENT: DEVELOPMENT CASE STUDIES. *Renewable Resour. Inf. Ser. Coastal Manage. Publ.* No. 3. 749p. 1985. FR 35(1)
[U.S. Natl. Park Serv., Washington, DC] Selected papers indexed in this issue of *Fisheries Review.*

90-001377 Coutin, P. C. and A. I. Payne. THE EFFECTS OF LONG-TERM EXPLOITATION OF DEMERSAL FISH POPULATIONS OFF THE COAST OF SIERRA LEONE, WEST AFRICA. *J. Fish Biol.* 35(Suppl. A):163-167. 1989. FR 35(1)
[Biol. Dep., Coventry Polytechnic, Coventry CV1 5FB, England]

90-001378 Crutchfield, James A. COMMENTS ON ECOLOGICAL AND ECONOMIC CONTRIBUTIONS TO MANAGEMENT DECISIONS. *Lect. Notes Coastal Estuarine Stud.* 28:283-286. 1988. FR 35(1)
[Univ. Wash., Inst. Mar. Studies, Mail Stop HF-05, Seattle 98195]

90-001379 Domanevskaya, M. V. and L. N. Domanevsky. [EFFECT OF THE OCEANOLOGICAL FEATURES ON FISH AGGREGATIONS OFF THE ATLANTIC COAST OF AFRICA.] *Tr. Atl. Nauchno-Issled. Inst. Rybn. Khoz. Okeanogr.* No. 2089. p. 30-45, 132. 1988. In Russian with English summ. FR 35(1)

90-001380 DuBois, Random and Edward L. Towle. CORAL HARVESTING AND SAND MINING MANAGEMENT PRACTICES. *Renewable Resour. Inf. Ser. Coastal Manage. Publ.* No. 3. p. 203-289. 1985. FR 35(1)

90-001381 DuBois, Random. COASTAL FISHERIES MANAGEMENT LESSONS LEARNED FROM THE CARIBBEAN. *Renewable Resour. Inf. Ser. Coastal Manage. Publ.* No. 3. p. 291-370. 1985. FR 35(1)

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

90-001382 Francis, R. C.; S. A. Adlerstein and R. D. Brodeur. BIOLOGICAL BASIS FOR MANAGEMENT OF COMMERCIAL FISHERY RESOURCES OF THE EASTERN BERING SEA. *Lect. Notes Coastal Estuarine Stud.* 28:187-209. 1988. FR 35(1)
[Univ. Wash., Fish. Res. Inst., Mail Stop WH-10 Seattle 98195]

90-001383 Getz, Wayne M. and Michael O. Bergh. QUOTA SETTING IN STOCHASTIC FISHERIES. *Lect. Notes Coastal Estuarine Stud.* 28:259-274. 1988. FR 35(1)
[Univ. Calif., Div. Biol. Control, Mail Stop JB-10, 1050 San Pablo Ave., Berkeley 94706]

90-001384 Godwin, John R. and Randall K. Kosaki. REEF FISH ASSEMBLAGES ON SUBMERGED LAVA FLOWS OF THREE DIFFERENT AGES. *Pac. Sci.* 43(4):289-301. 1989. FR 35(1)
[Dep. Zool., Univ. Hawaii-Manoa, Honolulu 96822] Data for 35 species.

90-001385 Hammond, Laurie. THE FUTURE OF MARINE SCIENCE, TECHNOLOGY AND INDUSTRY IN AUSTRALIA. *Search (Syd.)* 20(4):126-129. 1989. FR 35(1)

90-001386 Hatcher, B. G.; R. E. Johannes and A. I. Robertson. REVIEW OF RESEARCH RELEVANT TO THE CONSERVATION OF SHALLOW TROPICAL MARINE ECOSYSTEMS. *Oceanogr. Mar. Biol. Annu. Rev.* 27:337-414. 1989. FR 35(1)
[Mar. Biol. Lab., Zool. Dep., Univ. Western Australia, P.O. Box 20, North Beach, W.A. 6020, Australia]

90-001387 Hoey, John J.; Ramon J. Conser and Angelo R. Bertolino. THE WESTERN NORTH ATLANTIC SWORDFISH. *Audubon Wildl. Rep.* 1989/90:457-477. 1989. FR 35(1)
Xiphias gladius.

90-001388 Kaev, A. M. [SOME METHODIC ASPECTS OF FORECASTING THE ABUNDANCE OF THE CHUM AND HUMPBACK SALMON.] *Mar. Biol. (Vladivostok)* 1989(2):61-66. 1989. In Russian with English summ. FR 35(1)
[Lab. Nat. Reprod. Salmons, Sakhalin Branch, Pac. Res. Inst. Fish. & Oceanogr., Yuzhno-Sakhalinsk 693000, USSR] *Oncorhynchus keta* and *O. gorbuscha.*

90-001389 Kitazawa, Hiroo; Yuji Fujikawa; Jiroo Adachi and Nobukazu Tanaka. [RECENT TRENDS IN CATCH AND STOCK OF ROUNDNOSE FLOUNDER IN THE SOUTH-WESTERN JAPAN SEA AND ITS ADJACENT WATERS.] *Nippon Suisan Gakkaishi* 55(8):1297-1304. 1989. In Japanese with English summ. FR 35(1)
[Shimane Prefectural Fish. Exp. Stn., Setogashima, Hamada 697, Japan] *Eopsetta grigorjewi.*

90-001390 Kojima, Takahito; Kazumasa Yoza and Hideo Soeda. [FORCED OSCILLATIONS OF FISH REEF BLOCKS HUNG IN THE WATER.] *Nippon Suisan Gakkaishi* 55(8):1361-1370. 1989. In Japanese with English summ. FR 35(1)
[Coll. Agric. & Vet. Med., Nihon Univ., Setagaya, Tokyo 154, Japan]

90-001391 Larkins, H. A. "THE TRUTH, THE WHOLE TRUTH, AND NOTHING BUT THE TRUTH" (WITHIN THE 95% CONFIDENCE INTERVAL). *Lect. Notes Coastal Estuarine Stud.* 28:279-283. 1988. FR 35(1)
[Mar. Resour. Co., 192 Nickerson, Suite 307, Seattle, WA 98109]

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

90-001392 Lenanton, Rod; Peter Millington and Christine Smyth. SHARK & CHIPS. RESEARCH AND MANAGEMENT INTO SOUTHERN WA'S EDIBLE SHARK FISHERY. *West. Fish. Mag.* May/June(1989):17-23. 1989. FR 35(1)
Data for 13 species.

90-001393 Matsumura, Yasuharu. [FACTOR AFFECTING CATCH OF YOUNG TUNA *THUNNUS ORIENTALIS* IN WATERS AROUND THE TSUSHIMA ISLANDS.] *Nippon Suisan Gakkaishi* 55(10):1703-1706. 1989. In Japanese with English summ. FR 35(1)
[Nagasaki Prefectural Inst. Fish., Matsugae, Nagasaki 850, Japan]

90-001394 Nagasaki, Fukuzo. EFFECTIVENESS OF JAPANESE FISHERIES MANAGEMENT. *Lect. Notes Coastal Estuarine Stud.* 28:235-243. 1988. FR 35(1)
[Whales Res. Inst., 3-32-11, Ojima, Koto-ku, Tokyo 136, Japan]

90-001395 Nguyen, Tac An. [ENERGY FLOW IN THE TROPICAL MARINE SHELF ECOSYSTEMS OF VIETNAM.] *Mar. Biol. (Vladivostok)* 1989(2):9-15. 1989. In Russian with English summ. FR 35(1)
[Lab. Productivity Mar. Waters, Inst. Mar. Res., Natl. Cent. Sci. Res. Vietnam, Nhatrang, Vietnam]

90-001396 Ogden, J. C. COOPERATIVE COASTAL ECOLOGY AT CARRIBBEAN MARINE LABORATORIES. *Oceanus* 30(4):9-14. 1987-1988. From Ecol. Abstr. 89(6):89L/05707. 1989. FR 35(1)

90-001397 Parrish, B. B. SCIENTIFIC ADVICE FOR MANAGEMENT OF NORTHEAST ATLANTIC FISHERIES. *Lect. Notes Coastal Estuarine Stud.* 28:247-258. 1988. FR 35(1)
[I.C.E.S., Palaegade 2-4, DK-1261 Copenhagen K, Denmark]

90-001398 Polezhaez, V. V. and V. F. Tsyganov. [THE USE OF THE OCEANOGRAPHIC CHARACTERISTICS FOR THE BIOLOGICALLY PRODUCTIVE ZONE DETERMINATION.] *Tr. Atl. Nauchno-Issled. Inst. Rybn. Khoz. Okeanogr.* No. 2089. p. 100-109, 136. 1988. In Russian with English summ. FR 35(1)

90-001399 Policansky, David. NORTH PACIFIC HALIBUT FISHERY MANAGEMENT. *In: Ecological Knowledge and Environmental Problem-Solving: Concepts and Case Studies. National Research Council.* p. 137-150. 1986. FR 35(1)
[Natl. Res. Council, Washington, DC]

90-001400 Powell, James A. BIOLOGICAL OBJECTIVES AND THE MANAGEMENT OF LIVING MARINE RESOURCES: A COMPILATION OF INTERNATIONAL AGREEMENTS AND U.S. LAWS. *Lect. Notes Coastal Estuarine Stud.* 28:295-330. 1988. FR 35(1)
[20 B.P. 1419, Abijan 20, Ivory Coast]

90-001401 Ralonde, Raymond L. IDENTIFICATION OF PINK SALMON STOCKS IN THE FISHERY OF SITKA SOUND, ALASKA. *M.S. thesis, Univ. Idaho* 122p. 1988. FR 35(1)
Oncorhynchus gorbuscha.

90-001402 Rose, G. A. and W. C. Leggett. PREDICTING VARIABILITY IN CATCH-PER-EFFORT IN ATLANTIC COD, *GADUS MORHUA*, TRAP AND GILLNET FISHERIES. *J. Fish Biol.* 35(Suppl. A):155-161. 1989. FR 35(1)
[Fish. & Oceans Canada, Sci. Branch, P.O. Box 5667, St. John's, NF, Canada A1C 5X1]

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

90-001403 Rowell, C.; K. Stokes and R. Law. DOES FISHING GENERATE SELECTION DIFFERENTIALS? *J. Fish Biol.* 35(Suppl. A):335-337. 1989. FR 35(1)
[Biol. Dep., Univ. York, Heslington, York YO1 5DD, England] *Gadus morhua* in the North Sea.

90-001404 Royce, William F. COMMENTS ON JAPANESE FISHERY MANAGEMENT. *Lect. Notes Coastal Estuarine Stud.* 28:243-246. 1988. FR 35(1)
[10012 Lake Shore Blvd., Seattle, WA 98125]

90-001405 Rutzler, Klaus and Ian G. Macintyre. THE ATLANTIC BARRIER REEF ECOSYSTEM AT CARRIE BOW CAY, BELIZE, I. STRUCTURE AND COMMUNITIES. *Smithsonian Contrib. Mar. Sci.* No. 12. 539p. 1982. FR 35(1)
[Smithsonian Inst., Natl. Mus. Nat. Hist., Washington, DC 20560]

90-001406 Saetersdal, Gunnar. FISH RESOURCES RESEARCH AND FISHERY MANAGEMENT: A REVIEW OF NEARLY A CENTURY OF EXPERIENCE IN THE NORTHEAST ATLANTIC AND SOME RECENT GLOBAL PERSPECTIVES. *J. Cons. Cons. Int. Explor. Mer* 46(1):5-15. 1989. FR 35(1)
[Inst. Mar. Res., P.O. Box 1870-Nordnes, N-5024 Bergen, Norway]

90-001407 Sissenwine, Michael P. COMMENTS ON THE BIOLOGICAL BASIS OF MANAGEMENT OF THE COMMERCIAL FISHERIES OF THE EASTERN BERING SEA AND SOME RELEVANT OBSERVATIONS ABOUT FISHERIES MANAGEMENT OFF NEW ENGLAND. *Lect. Notes Coastal Estuarine Stud.* 28:210-216. 1988. FR 35(1)
[NOAA, Northeast Fish. Cent., Woods Hole, MA 02543]

90-001408 Smale, M. J. and C. D. Buxton. THE SUBTIDAL GULLY FISH COMMUNITY OF THE EASTERN CAPE AND THE ROLE OF THIS HABITAT AS A NURSERY AREA. *S. Afr. J. Zool.* 24(1):58-67. 1989. In English with Afrikaans summ. FR 35(1)
[Buxton: Dep. Ichthyol. & Fish. Sci., Rhodes Univ., P.O. Box 94, Grahamstown 6140, South Africa] Data for 59 species.

90-001409 Spanier, E.; S. Pisanty; M. Tom and G. Almog-Shtayer. THE FISH ASSEMBLAGE ON A CORALLIGENOUS SHALLOW SHELF OFF THE MEDITERRANEAN COAST OF NORTHERN ISRAEL. *J. Fish Biol.* 35(5):641-649. 1989. FR 35(1)
[Recanati Cent. Maritime Studies & Dep. Maritime Civilizations, Univ. Haifa, Mount Carmel, Haifa 31999, Israel] *Sargocentron rubrum, Siganus luridus,* and *S. rivulatus.*

90-001410 Thresher, R. E. and E. B. Brothers. EVIDENCE OF INTRA- AND INTER-OCEANIC REGIONAL DIFFERENCES IN THE EARLY LIFE HISTORY OF REEF-ASSOCIATED FISHES. *Mar. Ecol. Prog. Ser.* 57(2):187-205. 1989. FR 35(1)
[CSIRO Mar. Lab., GPO Box 1538, Hobart, Tasm. 7001, Australia]

90-001411 Turner, R. Eugene. COASTAL FISHERIES, AGRICULTURE AND MANAGEMENT IN INDONESIA: CASE STUDIES FOR THE FUTURE. *Renewable Resour. Inf. Ser. Coastal Manage. Publ.* No. 3. p. 373-440. 1985. FR 35(1)

90-001412 Tyler, A. V. BIOLOGICAL BASIS FOR MANAGEMENT OF GROUNDFISH RESOURCES OF THE WEST COAST OF CANADA. *Lect. Notes Coastal Estuarine Stud.* 28:217-232. 1988. FR 35(1)
[Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6]

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

90-001413 Wenner, Charles A. and George R. Sedberry. SPECIES COMPOSITION, DISTRIBUTION, AND RELATIVE ABUNDANCE OF FISHES IN THE COASTAL HABITAT OFF THE SOUTHEASTERN UNITED STATES. *NOAA (Natl. Oceanic Atmos. Admin.) Tech. Rep. NMFS (Natl. Mar. Fish. Serv.)* No. 79. 49p. 1989. FR 35(1)
[Mar. Resour. Res. Inst., Wildl. & Mar. Resour. Dep., P.O. Box 12559, Charleston, SC 29412-2559] *Leiostomus xanthurus, Micropogonias undulatus,* and *Brevoortia tyrannus.*

90-001414 Williams, Meryl. ORANGE ROUGHY RESEARCH IN AUSTRALIA: A CASE STUDY FOR RESEARCH CO-ORDINATION. *Search (Syd.)* 20(4):130-134. 1989. FR 35(1)
[Bur. Rural Resour., Dep. Primary Ind. & Energy, GPO Box 858, A.C.T. 2601, Australia] *Hoplostethus atlanticus.*

90-001415 Zieman, Joseph C. and Rita T. Zieman. THE ECOLOGY OF THE SEAGRASS MEADOWS OF THE WEST COAST OF FLORIDA: A COMMUNITY PROFILE. *U.S. Fish Wildl. Serv. Biol. Rep.* 85(7.25):155p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[Dep. Environ. Sci., Univ. Va., Charlottesville 22903]

UTILIZATION OF FISHERY PRODUCTS

90-001416 Awoyemi, M. D. INSECT INFESTATION OF DRIED FISH IN THE KAINJI LAKE AREA. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 183-191. 1989. FR 35(1)

90-001417 Ayanda, J. O. ECONOMICS OF TRADITIONAL FISH PRESERVATION AND STORAGE TECHNIQUES IN JEBBA LAKE BASIN. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 242-250. 1989. FR 35(1)

90-001418 Decker, Eric Andrew. STUDIES OF SOME FACTORS INVOLVED IN LIPID OXIDATION IN FISH MUSCLE. *Ph.D. dissertation, Univ. Mass.* 162p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(5):1711-1712. 1989. Order No. DA8917344. FR 35(1)

90-001419 Eyo, A. A. and M. D. Awoyemi. THE EFFECT OF STORAGE ON PROXIMATE COMPOSITION, MYCOFLORA AND INSECT INFESTATION OF SALTED SUN-DRIED FISH FROM KAINJI LAKE. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 175-182. 1989. FR 35(1)

90-001420 Eyo, A. A. and A. M. Abakar. STUDIES ON THE PREPARATION OF FERMENTED FISH PRODUCTS FROM FRESHWATER PELAGIC FISH (*ALESTES NURSE*). *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 160-166. 1989. FR 35(1)

90-001421 Eyo, A. A. THE EFFECT OF FREEZING AND FROZEN STORAGE ON THE KEEPING QUALITY OF TILAPIA AND CATFISH. *Natl. Inst. Freshwater Fish. Res. (Nigeria) Annu. Rep.* 1988. p. 149-152. 1989. FR 35(1)
Chrysicthys nigrodigitatus and *Tilapia nilotica.*

90-001422 Hatano, Mutsuo; Koretaro Takahashi; Ayumi Onishi and Yoshiaki Kameyama. [QUALITY STANDARDIZATION OF FALL CHUM SALMON BY DIGITAL IMAGE PROCESSOR.] *Nippon Suisan Gakkaishi* 55(8):1427-1433. 1989. In Japanese with English summ. FR 35(1)
[Lab. Food Chem. I, Fac. Fish., Hokkaido Univ., Hakodate 041, Japan]

UTILIZATION OF FISHERY PRODUCTS (CONTINUED)

90-001423 Kelly, Patti Ann. CONTROLLED ATMOSPHERE AND ENZYMATIC PROCESS TO PRESERVE FRESH FISH. *Ph.D. dissertation, Univ. R.I.* 162p. 1988. From Diss. Abstr. Int. B Sci. Eng. 50(4):1174. 1989. Order No. DA8913024. FR 35(1)

90-001424 Murata, Michiyo and Morihiko Sakaguchi. THE EFFECTS OF PHOSPHATASE TREATMENT OF YELLOWTAIL MUSCLE EXTRACTS AND SUBSEQUENT ADDITION OF IMP ON FLAVOR INTENSITY. *Nippon Suisan Gakkaishi* 55(9):1599-1603. 1989. In English with Japanese summ. FR 35(1)
[Res. Inst. Food Sci., Kyoto Univ., Uji, Kyoto 611, Japan] *Seriola quinqueradiata.*

90-001425 Nettleton, Joyce A. COMPARING NUTRIENTS IN WILD AND FARMED FISH. *Aquacult. Mag.* 16(1):34-41. 1990. FR 35(1)
[P.O. Box 423, Lexington, MA 02173] *Cyprinus carpio, Oncorhynchus kisutch, O. mykiss, Ictalurus punctatus, Salmo salar,* and *Sciaenops ocellatus.*

90-001426 Nonaka, Micho; Fumio Hirata; Hiroki Saeki and Yasuhiko Sasamoto. [MANUFACTURE OF HIGHLY NUTRITIONAL FISH MEAT FOR FOOD STUFF FROM SARDINES.] *Nippon Suisan Gakkaishi* 55(9):1575-1581. 1989. In Japanese with English summ. FR 35(1)
[Taiyo Cent. R & D Inst., Taiyo Fish. Co. Ltd., Tsukishima, Chuo, Tokyo 104, Japan] *Sardinops sagax.*

90-001427 Pacheco Aguilar, Ramon. THE EFFECT OF POTASSIUM BROMATE ON THE GEL-FORMING ABILITY OF PACIFIC WHITING *(MERLUCCIUS PRODUCTUS)* SURIMI. *Ph.D. dissertation, Oreg. State Univ.* 144p. 1989. From Diss. Abstr. Int. B Sci. Eng. 50(6):2225. 1989. Order No. DA8921947. FR 35(1)

90-001428 Peters, G. R.; L. A. Strowbridge and L. W. Penney. EXPERIMENTS TO DETERMINE SPLIT FISH EQUIVALENT FACTOR FOR SALTED CODFISH IN BULK. *Northwest Atl. Fish. Organ. Sci. Counc. Stud.* No. 13. p. 7-25. 1989. FR 35(1)
[Fac. Eng. & Appl. Sci., Memorial Univ. Newfoundland, St. John's, NF, Canada A1B 3X5] *Gadus morhua.*

90-001429 Raghunath, Magadi Rangegowda. THE NATURE OF AUTOLYSIS IN FISH SILAGE AND THE USE OF FISH SILAGE AS A SUBSTRATE FOR THE REVERSE PROTEOLYTIC (PLASTEIN) REACTION. *Ph.D. dissertation, Univ. Saskatchewan (Canada)* 1988. From Diss. Abstr. Int. B Sci. Eng. 50(6):2225. 1989. FR 35(1)

90-001430 Saeki, Hiroki; Atsushi Wakameda; Yasuyuki Ichihara and Yasuhiko Sasamoto. [EFFECT OF $CaCl_2$ ON THE ELUTION OF CROSS LINKING FACTOR IN ALASKA POLLACK.] *Nippon Suisan Gakkaishi* 55(10):1867. 1989. In Japanese. FR 35(1)
[Taiyo Cent. R & D Inst., Taiyo Fish. Co. Ltd., Tsukishima, Chuo, Tokyo 104, Japan] *Theragra chalcogramma.*

90-001431 Saito, Hiroaki and Kunisuke Nakamura. AN IMPROVEMENT OF THE NMR METHOD FOR ESTIMATING THE OXIDATIVE DETERIORATION OF FISH OILS. *Nippon Suisan Gakkaishi* 55(9):1663. 1989. In English. FR 35(1)
[Tokai Regional Fish. Res. Lab., Kachidoki, Chuo, Tokyo 104, Japan]

90-001432 Sakaguchi, Morihiko; Michiyo Murata and Jong-Bae Kim. THE EFFECTS OF REPEATED FREEZE-THAW CYCLES ON TORRYMETER READINGS OF CARP FILLETS. *Nippon Suisan Gakkaishi* 55(9):1665. 1989. In English. FR 35(1)

UTILIZATION OF FISHERY PRODUCTS (CONTINUED)

90-001432 CONTINUED
[Res. Inst. Food Sci., Kyoto Univ., Uji, Kyoto 611, Japan] *Cyprinus carpio.*

90-001433 Squires, Dale; Samuel F. Herrick, Jr., and James Hastie. INTEGRATION OF JAPANESE AND UNITED STATES SABLEFISH MARKETS. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 87(2):341-351. 1989. FR 35(1)
[Southwest Fish. Cent., La Jolla Lab., NMFS, NOAA, P.O. Box 271, La Jolla, CA 92103] *Anoplopoma fimbria.*

MISC. TECHNIQUES AND EQUIPMENT

90-001434 Bortone, Stephen A.; Joseph J. Kimmel and Charles M. Bundrick. A COMPARISON OF THREE METHODS FOR VISUALLY ASSESSING REEF FISH COMMUNITIES: TIME AND AREA COMPENSATED. *Northeast Gulf Sci.* 10(2):85-96. 1989. FR 35(1)
[Biol. Dep., Univ. W. Fla., Pensacola 32514]

90-001435 Brown, Charles L.; Thomas A. Edsall; Robert G. Waltermire and Barbara M. White. USING SIDE SCAN SONAR DATA IN A GEOGRAPHIC INFORMATION SYSTEM TO LOCATE AND DISPLAY LAKE TROUT SPAWNING HABITAT IN THE GREAT LAKES. *In: Proceedings Fifth National Moss Users Workshop. James D. Scurry, compiler.* p. 102-109. 1989. FR 35(1)
[U.S. Fish & Wildl. Serv., Ann Arbor, MI 48105] *Salvelinus namaycush.*

90-001436 Bryan, C. F.; R. D. Hartman and J. W. Korth. AN ADJUSTABLE MACROPLANKTON GEAR FOR SHALLOW WATER SAMPLING. *Northeast Gulf Sci.* 10(2):159-161. 1989. FR 35(1)
[Coop. Fish & Wildl. Res. Unit, School For., Wildl., & Fish., Agric. Exp. Stn., La. State Univ., Baton Rouge 70803]

90-001437 Cooper, Ernest W. T. EXOTIC SPECIES IDENTIFICATION BY THE VANCOUVER PUBLIC AQUARIUM FOR CITES ENFORCEMENT. *AAZPA (Am. Assoc. Zool. Parks Aquariums) Reg. Conf. Proc.* p. 350-357. 1989. FR 35(1)

90-001438 Copp, G. H. ELECTROFISHING FOR FISH LARVAE AND 0+ JUVENILES: EQUIPMENT MODIFICATIONS FOR INCREASED EFFICIENCY WITH SHORT FISHES. *Aquacult. Fish. Manage.* 20(4):453-462. 1989. FR 35(1)
[Inst. Freshwater Ecol., East. Rivers Group, Regional Fish. Lab., Bromholme Ln., Brampton Cambridgeshire PE18 8NE, England]

90-001439 Dusenbery, David B. OPTIMAL SEARCH DIRECTION FOR AN ANIMAL FLYING OR SWIMMING IN A WIND OR CURRENT. *J. Chem. Ecol.* 15(11):2511-2519. 1989. FR 35(1)
[School Appl. Biol., Ga. Inst. Technol., Atlanta 30332]

90-001440 Euliss, Ned H., Jr., and George A. Swanson. IMPROVED SELF-CLEANING SCREEN FOR PROCESSING BENTHIC SAMPLES. *Calif. Fish Game* 75(2):126-128. 1989. FR 35(1)
[U.S. Fish & Wildl. Serv., North. Prairie Wildl. Res. Cent., 6924 Tremont Rd., Dixon, CA 95620]

MISC. TECHNIQUES AND EQUIPMENT (CONTINUED)

90-001441 Fischer, Walter. THE SIGNIFICANCE OF FAO'S BIOSYSTEMATIC PROGRAM IN THE ENHANCEMENT OF WORLD FISHERIES. *Rev. Aquat. Sci.* 1(4):683-692. 1989. FR 35(1)
[Mar. Resour. Serv., Fish. Resour. & Environ. Div., FAO Fish. Dep., Rome, Italy]

90-001442 Jana, B. B. and S. Sengupta. RESPONSES OF DISSOLVED OXYGEN, BIOCHEMICAL AND CHEMICAL OXYGEN DEMANDS OF WATER TO ARTIFICIAL AERATION. *Int. J. Environ. Stud.* 33(4):307-315. 1989. FR 35(1)
[Fish. & Limnol. Res. Unit, Univ. Kalyani, Kalyani 741 235, West Bengal, India] *Cyprinus carpio.*

90-001443 Kalish, John M. OTOLITH MICROCHEMISTRY: VALIDATION OF THE EFFECTS OF PHYSIOLOGY, AGE AND ENVIRONMENT ON OTOLITH COMPOSITION. *J. Exp. Mar. Biol. Ecol.* 132(3):151-178. 1989. FR 35(1)
[Dep. Zool., Univ. Tasmania, GPO Box 252 C, Hobart, Tasm. 7001, Australia] *Macruronus novaezelandiae* and *Arripis trutta.*

90-001444 Kolz, A. Lawrence. A POWER TRANSFER THEORY FOR ELECTROFISHING. *U.S. Fish Wildl. Serv. Fish Wildl. Tech. Rep.* No. 22. p. 1-11. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[U.S. Dep. Agric., Denver Wildl. Res. Cent., Anim. & Plant Health Inspection Serv., Denver Fed. Cent., Bldg. 16, Denver, CO 80225]

90-001445 Kolz, A. Lawrence and James B. Reynolds. DETERMINATION OF POWER THRESHOLD RESPONSE CURVES. *U.S. Fish Wildl. Serv. Fish Wildl. Tech. Rep.* No. 22. p. 15-24. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[U.S. Dep. Agric., Denver Wildl. Res. Cent., Anim. & Plant Health Inspection Serv., Denver Fed. Cent., Bldg. 16, Denver, CO 80225] *Carassius auratus.*

90-001446 Kolz, Matthew L. CURRENT AND POWER DETERMINATIONS FOR ELECTRICALLY ANESTHETIZED FISH. *Prog. Fish-Cult.* 51(3):168-169. 1989. FR 35(1)
[8520 W. Baker Ave., Lakewood, CO 80227] *Carassius auratus.*

90-001447 Krasnoper, E. V. SURVEY OF METHODS USED TO DETERMINE THE DIET OF FISH BY THE AMOUNT OF FOOD IN THE STOMACH. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):92-98. 1988. FR 35(1)
[Inst. Biol. Inland Waters, AN SSSR, IBVV, Borok Yaroslavskiy Province, USSR]

90-001448 Mahon, Robin and Robert W. Smith. COMPARISON OF SPECIES COMPOSITION IN A BOTTOM TRAWL CALIBRATION EXPERIMENT. *J. Northwest Atl. Fish. Sci.* 9(1):73-79. 1989. FR 35(1)
[Mar. Fish Div., Bedford Inst. Oceanogr., Dartmouth, NS, Canada B2Y 4A2]

90-001449 McKee, D. A.; M. T. Ordner; D. Houston and A. Lawrence. EASILY CONSTRUCTED, INEXPENSIVE CAGE FOR AQUATIC ANIMALS. *Prog. Fish-Cult.* 51(3):166-167. 1989. FR 35(1)
[Tex. A&M Univ., Tex. Agric. Stn., P.O. Box Q, Port Aransas 78373]

MISC. TECHNIQUES AND EQUIPMENT (CONTINUED)

90-001450 Monaghan, P.; J. D. Uttley and J. D. Okill. TERNS AND SANDEELS: SEABIRDS AS INDICATORS OF CHANGES IN MARINE FISH POPULATIONS. *J. Fish Biol.* 35(Suppl. A):339-340. 1989. FR 35(1)
[Appl. Ornithol. Unit, Dep. Zool., Univ. Glasgow, Glasgow G12 8QQ, Scotland] *Ammodytes marinus.*

90-001451 Mousseau, Timothy A. AN ODOMETRE FOR UNDERWATER TRANSECTS. *Hydrobiologia* 184(3):191-192. 1989. FR 35(1)
[Dep. Entomol., Univ. Calif., Davis 95616]

90-001452 Nero, R. W. and J. J. Magnuson. CHARACTERIZATION OF PATCHES ALONG TRANSECTS USING HIGH-RESOLUTION 70-kHz INTEGRATED ACOUSTIC DATA. *Can. J. Fish. Aquat. Sci.* 46(12):2056-2064. 1989. In English with French summ. FR 35(1)
[Cent. Limnol., Univ. Wis., Madison 53706]

90-001453 Okamoto, Mineo. [ABILITY OF A SMALL OBSERVATION ROV TO OBSERVE FISH FAUNA AROUND ARTIFICIAL FISH REEFS IN COMPARISON WITH DIVING OBSERVATION.] *Nippon Suisan Gakkaishi* 55(9):1539-1546. 1989. In Japanese with English summ. FR 35(1)
[Japan Mar. Sci. & Technol. Cent., Natsushima, Yokosuka 237, Japan]

90-001454 Strange, C. D.; M. W. Aprahamian and A. J. Winstone. ASSESSMENT OF A SEMI-QUANTITATIVE ELECTRIC FISHING SAMPLING TECHNIQUE FOR JUVENILE ATLANTIC SALMON, *SALMO SALAR* L., AND TROUT, *SALMO TRUTTA* L., IN SMALL STREAMS. *Aquacult. Fish. Manage.* 20(4):485-492. 1989. FR 35(1)
[Welsh Water Authority, Rivers Div., River House, St. Mellons, Cardiff, South Glamorgan CF3 0LT, Wales]

90-001455 Thompson, Daniel A. MOBILE TAGGING TRAILERS DESIGN AND CONSTRUCTION. *Wash. Dep. Fish. Tech. Rep.* No. 107. 39p. 1989. FR 35(1)
[115 Gen. Admin. Bldg., Olympia, WA 98504] *Oncorhynchus tshawytscha.*

90-001456 Wood, Chris C.; Dennis T. Rutherford and Skip McKinnell. IDENTIFICATION OF SOCKEYE SALMON (*ONCORHYNCHUS NERKA*) STOCKS IN MIXED-STOCK FISHERIES IN BRITISH COLUMBIA AND SOUTHEAST ALASKA USING BIOLOGICAL MARKERS. *Can. J. Fish. Aquat. Sci.* 46(12):2108-2120. 1989. In English with French summ. FR 35(1)
[Dep. Fish. & Oceans, Fish. Res. Branch, Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6]

90-001457 Zhukinskiy, V. N. and R. I. Gosh. CRITERIA OF BIOLOGICAL QUALITY OF EGGS OF COMMERCIAL FISHES AND A METHOD FOR RAPID ASSESSMENT. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 28(6):106-114. 1988. FR 35(1)
[Inst. Hydrobiol., Acad. Sci. Ukrainian SSR, Kiev, USSR] *Rutilus rutilus heckeli* and *Abramis brama.*

REVIEWS, BIBLIOGRAPHIES, ETC.

90-001458 DuBois, Robert B. BIBLIOGRAPHY OF FISHERY INVESTIGATIONS ON LARGE SALMONID RIVER SYSTEMS WITH SPECIAL EMPHASIS ON THE BOIS BRULE RIVER, DOUGLAS COUNTY, WISCONSIN. *Wis. Dep. Nat. Resour. Tech. Bull.* No. 166. 58p. 1989. Available from Dep. Nat. Resour., P.O. Box 7921, Madison, WI 53707. FR 35(1)
[DNR Brule Area Office, Box 125, Brule, WI 54820] *Salvelinus* spp., *Salmo* spp., and *Oncorhynchus* spp.

REVIEWS, BIBLIOGRAPHIES, ETC. (CONTINUED)

90-001459 Mann, Joyce A. SELECTED BIBLIOGRAPHY ON DISEASES AND PARASITES OF FISHES: BOOKS, PROCEEDINGS, AND REVIEWS, 1978-1989. *U.S. Fish Wildl. Serv. Fish Dis. Leafl.* No. 81. 7p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[U.S. Fish & Wildl. Serv., Tech. Inform. Serv., Natl. Fish. Res. Cent.-Leetown, Kearneysville, WV 25430]

90-001460 Villella, Rita F. ACID RAIN PUBLICATIONS BY THE U.S. FISH AND WILDLIFE SERVICE, 1979-1989. *U.S. Fish Wildl. Serv. Biol. Rep.* 80(40.28):31p. 1989. Available from U.S. Fish & Wildl. Serv., Publ. Unit, 18th & C St., NW, Arlington Square Bldg., Washington, DC 20240. FR 35(1)
[U.S. Fish & Wildl. Serv., Acid Precipitation Sect., Natl. Fish. Res. Cent.-Leetown, Box 700, Kearneysville, WV 25430]

WATERSHED MANAGEMENT

90-001461 Brinkman, J. J.; S. Groot; F. J. Los and P. Griffioen. AN INTEGRATED WATER QUALITY- AND WATER QUANTITY MODEL AS A TOOL FOR WATER MANAGEMENT. APPLICATION TO THE PROVINCE OF FRIESLAND, THE NETHERLANDS. *Verh. Int. Ver. Limnol.* 23(3):1488-1494. 1988. FR 35(1)
[Water Resour. & Environ. Div., Delft Hydraulic Lab., P.O. Box 177, 2600 MH Delft, Netherlands]

90-001462 Holland, M. M. and J. Phelps. WATER RESOURCE MANAGEMENT: CHANGING PERCEPTIONS OF RESOURCE OWNERSHIP IN THE UNITED STATES. *Verh. Int. Ver. Limnol.* 23(3):1460-1464. 1988. FR 35(1)
[School Arts & Sci., Coll. New Rochelle, New Rochelle, NY 10801]

90-001463 Meyer, Christopher H. WESTERN WATER AND WILDLIFE: THE NEW FRONTIER. *Audubon Wildl. Rep.* 1989/90:59-91. 1989. FR 35(1)

MISCELLANEOUS

90-001464 Olsen, Per. WATER RESOURCE MANAGEMENT IN SWEDEN. *Verh. Int. Ver. Limnol.* 23(3):1505-1510. 1988. FR 35(1)
[Natl. Environ. Protection Board, Dep. Res. & Dev., Box 1302, S-171 25 Solna, Sweden]

90-001465 Schiemer, Fritz and Thomas Spindler. ENDANGERED FISH SPECIES OF THE DANUBE RIVER IN AUSTRIA. *Regul. Rivers Res. Manage.* 4(4):397-407. 1989. FR 35(1)
[Univ. Vienna, Inst. Zool., Dep. Limnol., Althanstr. 14, A-1090 Vienna, Austria]

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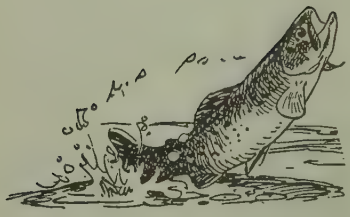

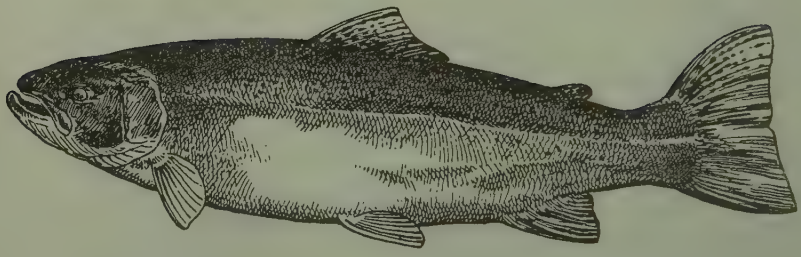

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California: Lake Havasu
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California: Lake Tahoe
90-001109
California: Merced River
90-001014
California: Pit River
90-000236
California: Sacramento River
90-001256
California: San Francisco Bay
90-000537
90-001362
California: San Joaquin River
90-001256
Cameroon
90-000782
Canada
90-001369
90-001412
90-001437
Canada: Alberta
90-000166
90-000631
90-001178
Canada: Arctic
90-000138
Canada: Babine Lake
90-001177

Canada: Bay of Fundy
90-000029
Canada: British Columbia
90-000311
90-000414
90-000477
90-000554
90-000571
90-000572
90-000599
90-000621
90-001058
90-001100
90-001177
90-001196
90-001295
90-001456
Canada: Flathead River
90-001295
Canada: Hudson Bay
90-000431
90-000687
Canada: Keogh River
90-000572
Canada: Lake Memphremagog
90-001122
Canada: Lake Opeongo
90-000522
Canada: Lake Opinicon
90-000635
Canada: Lake St. Jean
90-001174
Canada: Manitoba
90-000030
90-000035
90-000157
90-000481
90-001157
Canada: Miramichi River
90-000603
Canada: New Brunswick
90-000029
90-000212
90-000603
90-000791
90-001259
Canada: Newfoundland
90-000148
90-000204
90-000573
90-000591
90-000651
90-000986
90-001107
90-001152
Canada: North River
90-000834
Canada: Nova Scotia
90-000593
90-000636
90-000663
90-000834
90-000986
90-001050
90-001448
Canada: Ontario
90-000496
90-000522
90-000624
90-000635
90-000842

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Canada: Ontario
90-001097
90-001121
90-001166
90-001191
Canada: Pinto Lake
90-000166
Canada: Provoking Lake
90-000522
Canada: Quebec
90-000197
90-001122
90-001174
90-001228
Canada: Restigouche River
90-000603
Canada: Saskatchewan
90-001137
Canada: Skeena River
90-001058
Canada: Southern Indian Lake
90-001157
Canada: St. John River
90-000791
90-001259
Canada: St. Lawrence Seaway
90-000197
90-000592
90-000598
90-000616
90-000618
90-001402
Canada: Taku River
90-000599
Canada: Upper Arrow Lake
90-000554
Canada: Watshishou River
90-000197
Canada: Westfield River
90-000834
Canada: Yukon
90-000571
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90-000675
90-000921
90-001381
90-001396
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90-000796
90-000797
China
90-000698
90-000863
90-001338
90-001354
China: Er Hai Lake
90-000480
China: Jiangsu Province
90-000039
China: Yunnan Province
90-001110
China: Zhejiang Province
90-000039
90-000054
Chukchi Sea
90-000155
Colombia
90-000675
90-000719
Colorado
90-000940

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90-001201
Colorado: South Platte River
90-001264
Colorado: St. Vrain River
90-000897
Costa Rica
90-000682
Costa Rica: Gulf of Nicoya
90-000867
Denmark
90-000995
Denmark: Gudenaa River
90-001255
Denmark: Lake Frederiksborg Slotsso
90-001145
90-001146
East Germany: Lake Grosse Fuchskuhle
90-001149
Ecuador
90-000074
90-000719
England
90-000447
90-000540
90-000577
90-000683
90-000792
90-000808
90-000811
90-000850
90-001114
90-001168
90-001238
England: Culm River
90-000491
England: Mersey River
90-001260
England: River Tees
90-001303
England: Severn River
90-000976
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90-000795
England: Winterbourne Stream
90-001221
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90-000432
90-000479
90-000866
90-001304
90-001328
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90-001288
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90-000677
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90-001224
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90-001465
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90-000534
90-001103
90-001132
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90-001270
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90-001247
90-001300
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90-000462

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90-000844
90-000848
90-001126
90-001140
90-001182
Finland: Lake Lakeenjarvi
90-001143
Finland: Lake Pyhajarvi
90-000159
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90-000526
90-000532
90-001415
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90-000553
Florida, Northwestern
90-000564
Florida: Biscayne Bay
90-000546
Florida: Biscayne Natl. Park
90-000828
Florida: Tampa Bay
90-000551
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90-000433
90-000914
France: Brittany Estuary
90-000853
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90-000487
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90-001235
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90-000931
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90-001205
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90-001081
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90-000562
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90-000507
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90-000767
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90-000469
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90-000606
90-001073
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90-001290
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Iceland: Lake Thingvallavatn
90-001147
Idaho: Bear Lake
90-000949
Idaho: Boise River
90-001216
Idaho: Clearwater River
90-001019
Idaho: Rock Creek
90-001234
Idaho: Snake River
90-001010
Illinois
90-000047
90-000814
Illinois: Illinois River
90-000570
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90-000641
90-000684
90-000859
90-001341
90-001346
90-001347
India: Brahmaputra River
90-000594
India: Didwana Lake
90-001105
India: Hooghly Estuary
90-001003
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90-000174
90-000645
90-000676
90-000688
90-000710
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90-000437
90-000786
90-000814
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90-001313
Indiana: Sugar Creek
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90-001333
90-001334
90-001411
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90-001277
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90-001217
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90-001093
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90-000804
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90-000448
90-000536
Ireland: Caragh River
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Ireland: Shannon River
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Ireland: Suir River
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90-000701
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90-000020
90-000465
90-001409
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90-000659
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90-000827
90-000931
90-001131
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90-000858
Italy: Dirillo Reservoir
90-001323
Italy: Lake Maggiore
90-001120
Italy: Lake Orta
90-001106
Italy: Lake Scuro Parmense
90-001099
Italy: Ligurian Sea
90-000692
Italy: Po River
90-001233
Italy: Tyrrhenian Sea
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90-000903
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90-000052
90-000053
90-000769
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90-000354
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90-000071
90-000076
90-000362
90-000461
90-000516
90-000527
90-000590
90-000671
90-000674
90-000773
90-001002
90-001011
90-001037
90-001049
90-001077
90-001130
90-001211
90-001394
90-001404
90-001433
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90-000794

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90-001005
Japan: Ishitegawa Reservoir
90-001337
Japan: Lake Biwa
90-001144
Japan: Lake Kasumigaura
90-000158
Japan: Lake Kizaki
90-001210
Japan: Lake Mashu
90-001098
Japan: News Bay
90-000586
Japan: Nomura Reservoir
90-001337
Japan: Tsushima Island
90-001393
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90-000522
90-001138
Lake Michigan
90-000814
90-001141
90-001188
Lake Ontario
90-000823
90-000873
Lake Superior
90-001169
90-001189
Louisiana
90-000545
90-001018
Louisiana, Southern
90-000815
Louisiana: Ben Hur Lake
90-000512
Louisiana: Calcasieu Lake
90-000909
Louisiana: Calcasieu River
90-000909
Louisiana: False River
90-000512
Madagascar
90-000941
Maine: Gulf of Maine
90-001050
Maine: Lake St. George
90-000700
Maine: St. John River
90-001259
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90-000066
90-000442
90-000463
Malaysia: Kuala Trengganu River
90-000059
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90-000195
90-000689
Marshall Islands
90-000716
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90-001026
Massachusetts
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90-000153
90-000191

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90-000673
90-000692
90-000699
90-000820
90-000858
90-000903
90-001044
90-001081
90-001375
90-001409
Mexico: Baja California Norte
90-001364
Mexico: Gulf of California
90-000520
90-000610
Mexico: Rio Choy
90-000485
Mexico: Rio Coy
90-000485
Mexico: San Luis Potosi
90-000485
Mexico: Yucatan
90-000164
Michigan
90-000634
Michigan: Lawrence Lake
90-001167
Michigan: Saline River
90-001246
Michigan: Wintergreen Lake
90-001134
Minnesota, Southeastern
90-001299
Minnesota: Lake Itasca
90-000639
Minnesota: Lake Winona
90-001129
Minnesota: Otter Tail River
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90-000652
Missouri: Lake of the Ozarks
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Missouri: Truman Lake
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Monaco
90-000153
Montana
90-000953
Montana: Flathead Lake
90-001125
Montana: Flathead River
90-001295
Montana: Klinta Lake
90-001125
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90-000556
90-000557
90-000578
90-000649
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90-001159
90-001342
90-001343
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90-000954
90-001186
90-001461
Netherlands: Meuse River
90-001300

Nevada
90-001275
New Caledonia
90-000705
New Hampshire
90-001254
New Hampshire: Hubbard Brook
90-001229
New Hampshire: Mirror Lake
90-001108
90-001167
New Jersey, Southern
90-000511
New Mexico: Pecos River
90-000576
New York: Catskill Creek
90-000509
New York: Hudson River
90-000539
New York: Shawangunk Kill
90-000568
New Zealand
90-000193
90-000595
90-000630
90-000664
90-001113
90-001119
90-001176
90-001197
90-001202
90-001207
90-001222
90-001223
90-001232
90-001289
90-001297
90-001298
90-001308
90-001309
New Zealand: Hamilton Lake
90-001112
New Zealand: Lake Mahinerangi
90-001161
New Zealand: Lake Okaro
90-000633
New Zealand: Lake Rotorua
90-001187
90-001206
New Zealand: Manawatu River
90-000851
New Zealand: Okarito River
90-000640
New Zealand: Rakaia River
90-001248
Nicaragua
90-000185
Nigeria
90-000038
90-000735
90-000830
90-001420
Nigeria: Jebba Lake
90-001094
90-001417
Nigeria: Lagos Lagoon
90-001006
Nigeria: Lake Kainji
90-000734
90-000748
90-000749

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Nigeria: Lake Kainji
90-001173
90-001416
90-001419
Nigeria: Lake Tatabu
90-001118
Nigeria: Owa River
90-001278
Nigeria: Tiga Lake
90-000626
90-000994
90-001317
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90-000430
90-000479
90-000607
90-000715
90-000961
90-001324
North America: Colorado River and Basin
90-001215
North America: Columbia River and Basin
90-000985
90-001010
North America: Great Plains
90-000938
North Carolina
90-000532
90-001452
North Carolina: Coweeta Creek
90-000502
North Sea
90-000149
90-000579
90-000582
90-000605
90-000658
90-000662
90-000666
90-000808
90-000911
90-001066
90-001403
Northern Ireland
90-000439
Norway
90-000294
90-000450
90-000542
90-000951
90-000988
90-001192
90-001263
Norway: Essand Reservoir
90-000547
Norway: Glama River
90-001293
Norway: Laerdalselva River
90-001226
Norway: Lake Gjersjoen
90-001199
Norway: Lake Stugusjoen
90-001156
Norway: Nea River
90-000972
Norway: Nesjo Reservoir
90-000547
Norway: Sjoa River
90-000993
Norway: Surna River
90-001225

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90-000550
90-000690
90-001241
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90-000493
90-000583
90-000645
90-000711
90-001369
90-001410
90-001412
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90-000477
90-000550
90-000559
90-000566
90-000588
90-000672
90-000678
90-001399
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90-000575
90-000678
90-000680
90-000783
90-001366
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90-000179
Panama
90-000074
Panama: Rio Frijoles
90-001283
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90-000356
Paraguay: Parana River
90-000974
Pennsylvania
90-000971
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90-000821
Peru
90-000678
90-000719
90-000796
90-000797
90-001002
90-001185
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90-000074
90-001330
90-001331
90-001363
Poland
90-000434
90-000764
90-000766
Poland: Baczycha River
90-000765
Poland: Bobrowka River
90-000002
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Poland: Dunajec River
90-001265
Poland: Vistula River
90-000656
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90-000565
Portugal: Ria de Aveiro
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90-000659
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Romania: Mostiste Reservoir
90-001280
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90-001280
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90-001069
Scotland
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90-001450
Scotland: Don River
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Scotland: Firth of Clyde
90-000218
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90-001361
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90-000548
90-000627
90-000629
90-000712
90-000841
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90-001358
90-001359
90-001365
90-001368
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90-000980
South Africa: Hartbeespoort Reservoir
90-001336
South Africa: Kosi Lakes
90-001117
South Africa: Lake St. Lucia
90-001117
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90-001360
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90-000720
South America: Amazon River and Basin
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South America: Lake Titicaca
90-001185
South Carolina
90-000488
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90-000962
90-001095
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South Carolina: Hartwell Lake
90-000818
Spain
90-000459
90-000560
90-000798
90-000946
90-000991
Spain: Ebro River
90-001285
Spain: Esla River
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90-000198
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90-000541
Spain: Guadiana River
90-001316
Spain: Llobregat River
90-001284
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90-000653
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90-001340
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Sweden: Glama River
90-001293
Sweden: Lake Anketjarn
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Sweden: Lake Olterjarn
90-000847
Sweden: Lake Ornanas
90-000632
Sweden: Lake Oxsjon
90-000824
Sweden: Laktabacken Creek
90-001276
Sweden: Ronnea River
90-001213
Sweden: Tullviksbacken Stream
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Tennessee: Old Hickory Reservoir
90-000521
Tennessee: Reelfoot Lake
90-000849
Tennessee: Tennessee River
90-000709
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Texas: Galveston Bay
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90-000042
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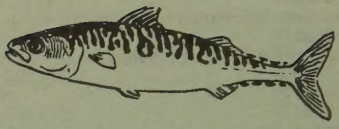

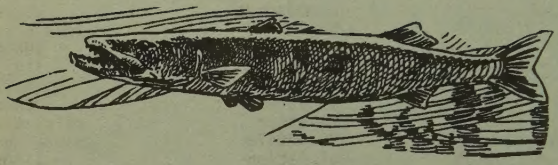

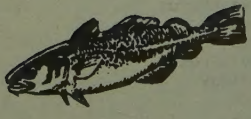

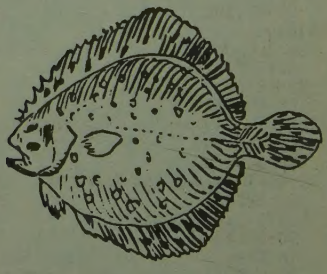

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